

MANUFACTURERS' RECORD.

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Why Many Newspapers Fail.

In a recent lecture, entitled "The Making of a Newspaper," Rev. Byron H. Stauffer, of Buffalo, N. Y., said:

The true newspaper always has this dormant mind behind it—the individuality of the leading spirit of the organization must be stamped on every issue. The reader must feel the breath of his argument and the heat of his enthusiasm; whatever it is that man stands for, he must stand for. Be he on one side or another, the reader feels that the paper is giving its life for the cause that this mind is espousing. No sheet which has not this mind behind it is a newspaper. Stock companies may be formed with millions of capital; talent may be engaged to edit and to circulate; thousands may be spent in telegraphic or home news, but unless one man steps out and puts his hand on the throttle, controlling the direction, regulating the speed and ordering stops and starts the engine will run wild and the train will be ditched. Two hands cannot control the throttle; they will throttle the control. This is why so many newspaper enterprises, begun auspiciously from a monetary standpoint, have failed. Their board of directors might have resolved and voted to the crack o' doom; what the reader wanted was one mind. No paper can run for revenue only. Most great newspapers are revenue producers, but not because they merely try to be.

Preventing Trade Restrictions.

At the annual meeting of the New Orleans Freight and Transportation Bureau the report was made upon the operations of the bureau during the past year, showing a gratifying influence which the organization has upon the progress of the Louisiana metropolis. An important suggestion in the report is as follows:

The opposition in granting privileges in the city to transportation lines is unfortunate, as no commercial center has ever been known to have gained recognition as a wholesale market whose facilities for handling and distributing its merchandise has been congested by inadequate facilities to expedite the movement of freight, the building of warehouses, elevators or other necessary facilities to accommodate the movement to or from a city. Let the city council throw, if they choose, safeguards around any grant they shall deem it wise to make, but let them give and give freely to all lines centering here the facilities whose object and sole purpose is to build up the commercial greatness of this seaport. Transportation lines, expending thousands of dollars in buildings and improvements, must necessarily seek business to justify the outlay, and by so doing increase the export and import of this market, to say nothing of the local advantage derived from this increase of business. A policy cannot be too severely condemned which by its opposition debars a line or lines centering here in an earnest endeavor to secure better facilities to handle or increase the movement of business.

Such opposition has already resulted in building up competing points whose growth has resulted solely from the opposition to grant the privileges sought by the various lines. We have before us a new era brought about by the Spanish-American war opening up Cuba and other islands which we should take advantage of, outside of the foreign exports and imports and Central and South American trade. This can only be brought about by building up this port, and it is earnestly to be hoped that all commercial organizations will look into the matters to the best interests in urging the granting of such facilities as will increase the movement to and from this port. The immense growth in the grain movement from this port is but one of the striking illustrations of what can and will be done in the near future, and is one of the strongest arguments that can be advanced in favor of a liberal spirit in the granting of necessary facilities to accomplish this end.

These remarks are timely and should be heeded not only by New Orleans, but by every Southern port before which new opportunities are opening. At the present time it has become necessary for a special commission to be occupied in discovering and cataloguing the impediments of New York's commerce. Enough has been said and written about that particular port to indicate that the evils complained of there are largely the result of shortsighted policy on the part of civic or other influences toward the factors which naturally might contribute to the extension of trade. New York is a warning for other ports of the country, and particularly for those of the South. The suggestions of the New Orleans organization are, therefore, full of wisdom.

A Losing Policy.

In the October number of Gunton's Magazine, a strong sound-money advocate, is an exceedingly timely article dealing with the shortsightedness of misrepresentation or exaggeration on the part of advocates of sound money. The text of the article is a monograph by Mr. Edward Atkinson, published by the Sound Currency Committee, and the alleged point of misrepresentation is not an actual misquotation of figures of the cost of producing silver, but the misapplication of their relation to the general cost of producing the market supply of silver, it being pointed out that Mr. Atkinson has used the figures of the best two mining companies in the world to illustrate his argument. In criticism of the monograph, it is argued that similar reasoning applied to the cotton manufacturing industry would be fallacious and misleading in the extreme, and these two significant statements are made:

It is not an uncommon experience for important public movements to suffer serious injury from the overzeal, exaggeration and ill-digested statements of their friends.

If the people of this country are really to be educated into sound ideas on currency and banking, which is the most important domestic question now demanding consideration, the discussion must be fair and scientific; that is, based upon sound economic principles.

The propagation of sound ideas on money and banking is the most important feature of industrial education for the immediate future. This country, more than any other,

is open to grave dangers from misinformed and misdirected public sentiment upon this subject.

Here is a position that the Manufacturers' Record has long maintained. In the midst of the heated Presidential campaign of 1896 it urged the friends of conservatism in this country that only harm could ultimately result from a persistent disregard of the spirit of fairness in the discussions then underway; that men could be honest in their mistakes, and that calling a man a liar was no way to convert him to the truth. Misrepresentation may have a temporary effect in the direction intended, but the reaction must come as the fair-mindedness of the American people recovers from the excitement of a temporary agitation. Those will suffer who seek to mislead or who, by false argument, even if unintentional, misrepresent the case, whether they be advocates of sound finance or not.

To Remove a Curse.

In a letter to the Manufacturers' Record, Mr. R. L. Hill, of Lake Providence, La., writes as follows:

An election will be held in our town the latter part of November, at which we propose to issue water-works bonds and levy a special tax for the purpose of building a water works, which will be voted on by the people. The leading people of the community are heartily in favor of the enterprise, and it is hoped they will carry the election. The rapid spread of yellow fever in nearby towns has so demoralized our people that little can be done till cold weather comes. These annual visits of this dread scourge will retard the development of this part of our country more than anything else could, and our people, as well as the federal government, should spare no pains in their efforts to stamp out this disease. We ought to get rid of the local quarantines first and stop the fresh interference with commerce.

It is to be sincerely desired that the proposition to establish the water works will receive the vote of the people of Lake Providence. One of the most efficient means for removing the dread of yellow fever is the provision for cleanliness of a community. The town which has good drainage and good water-supply may snap its fingers at diphtheria or typhoid fever, either of which, according to statistics, are much more to be dreaded than yellow fever.

While we are on this point, it may be well to refer to a suggestion of the Augusta Chronicle, based upon an article in the New Orleans Medical and Surgical Journal, that the name of yellow fever be changed. It said:

There seems to be something in the name yellow fever which scatters consternation and panic among the people. It has been shown by frequent statistics that more people die annually of typhoid fever, pneumonia or any of these virulent diseases in the large cities than from yellow fever, even during the years of epidemic. Still, no panic is created by the presence of any of these diseases, while the mere suspicion of yellow fever engenders widespread consternation, and even goes to the extent of the wretched shotgun quarantine.

Under federal control of quarantine is the remedy for the shotgun policy. The results of intelligence and science, backed by power in changing radically

the conditions at Santiago since the surrender, are an illustration of the good effects to be expected from a similar plan in this country. It may be confidently hoped that the change of government in Cuba will destroy forever features of life at Havana and Santiago which have made them breeding places for the plague which has brought such loss upon some of the Southern ports. But, in the meantime, the suggestion of the Chronicle is worthy of consideration and adoption.

Educating New England.

Capt. James W. English, of Atlanta, Ga., who has spent his vacation in New Hampshire, has returned to his home. While in New England he conversed with a great many people whom he found interested in matters pertaining to the South. To a reporter of the Atlanta Journal he said:

There is a good feeling toward this section and many inquiries were made as to the industrial and commercial interests of the South. The people up there concede that the South is certain to monopolize the manufacture of cotton goods of the coarser grade, but they contend that the New England States will continue to make the finer goods. I asked them why they claimed this and why we cannot secure the bulk of the manufacturing of both coarse and fine goods in the South. They answered that we cannot secure the labor here for the finer-grade machines. I replied to them by telling them labor will go wherever it is best paid. By establishing fine-grade factories in the South and paying as good wages as they pay in New England, we can secure all the labor we want, because the workers can find better conditions here and they can live cheaper than they can in the East. Some of the Eastern folk thought we employed colored labor almost exclusively in the factories of the South, and that the workmen are not skilled and could not make the finer grades of goods. I dispelled that idea among those with whom I talked by telling them that, so far as I have heard, there is not but one factory in the South which is operated with the colored labor exclusively, and that the Southern mill-workers are skilled white men and women, and that they are competent to become the best workers in the world in this class of industry.

Captain English has evidently been engaged in valuable missionary labors in New England. He may have gone a step further than he seems to have done, and with perfect confidence have announced that when the South enters extensively upon the manufacture of the finer grade of goods it will have right at hand all the skilled labor necessary, without drawing upon New England. The cotton-mill-labor situation in the South today is not at all unlike that in New England before its fine-grade goods were manufactured in as large quantities as at present. The South's operatives are drawn largely from the same class of whites as that which supplied the New England mills forty or fifty years ago, before agitation based upon fancied ills gave the New England manufacturers the opportunity of an excuse for replacing in their employ native labor with that drawn from abroad. The Southern operative has just as much inherent ability as the New England operative of half a century ago, and may be de-

pended upon to develop the skill necessary for the work in finer grades whenever the necessity arrives. The certainty of this is assured by the support which has led to the establishment at Clemson College, S. C., and at the Georgia School of Technology, at Atlanta, of textile departments for the express purpose of training the youth of the South in the important lines of manufacturing connected with cotton industry.

In the meantime, New England need not disturb itself about colored labor in Southern mills. Though we do not believe that any such lawless proceedings as those which precipitated the fierce race battle of Virden, Ill., when the attempt was made to substitute negroes for white miners, will ever be presented in the cotton industry in the South, we feel confident that the day is far distant when the employment of negroes in the mills will threaten in any way the opportunities of the whites. With the progress of the industry in the South at the rate now prevailing, there will be employment for all the whites offering themselves, and if the negro is admitted to the mills at all in large numbers, it will be to take the place of whites who have passed on to more skilled movements. The effect of free negro labor upon the cotton-manufacturing industry ought to have been considered by New England before it undertook to make that labor free in the supposed interest of New England labor.

On Advertising.

Touching the possibilities of a full revival and greater development of the furnace interests of Southwest Virginia and referring to the statement of a contemporary that the opportunities offered to capital need only to be known to induce men of means to settle there, the Richmond Times says:

We love to hear that sort of talk. It is worth so much more to a community than to be continually harping on the calamity string. The way to build up Southwest Virginia is to talk of its great wealth, not of its poverty.

That is a truth which may be applied to many other sections of the South. Nowhere in the world is there perfection. The happiest mortal cannot escape every ill. But he should not permit his real or fancied ills to obscure his power for enjoyment of the many good things. If he is not already bilious, he will, by persistent contemplation of the gloomy side of life, induce a derangement of the liver. And so with communities. Their safest course is to forget their drawbacks, if they are imaginary, or to remove them, if they are real, in devoting all their energies to the advertisement of their undeveloped resources. The calamity-howler is the worst sort of an advertisement.

Referring to a controversy which has been waged for several weeks between interests in Savannah and Charleston the Charleston Evening Post makes suggestions which may be profitably followed. It deprecates a rivalry of cities finding expression in slurs cast upon each other, and says:

Let us get our own house in order before we undertake to help our neighbors, and if a man across the line gets a new horse, don't dig a pit for it to fall into; buy a better one for yourself.

This is another form of a text from which the Manufacturers' Record has preached repeatedly. No city can hope for permanent advantage from a policy which consumes time and energy in adverse criticism of a competitor or in belittling its achievements. The bet-

ter plan is to profit by another's mistakes and to duplicate, if not excel, another's achievements.

ROUSING THE TEXANS.

Real Estate Men to Unite in Developing the State.

A special dispatch from Houston has been sent to the newspapers of Texas as follows:

"The Manufacturers' Record, of Baltimore, the leading industrial publication in the Southern States, says in its issue of October 7:

"Under the auspices of the Houston Business League, a convention of the real estate dealers in Texas will be held at Houston December 6 to plan for the upbuilding of the State."

"The whole story is told in that paragraph, and there should be not less than one thousand delegates from all parts of Texas present on this occasion. Some weeks ago Mr. T. J. Skaggs, of Rock Island, Texas, issued a call for this meeting, and his call has been printed in hundreds of Texas papers. Many of the leading newspapers in the State have given the undertaking editorial endorsement, and there is every reason to believe that the meeting will not only be a pronounced success as regards numbers, but that its work will result in a great deal of good to the State. The Texas fruit, flower and vegetable festival will be held in Houston December 5 to 10, inclusive, and, in addition to the incomparable program of attractions and entertainment, there will be presented such a showing of midwinter-grown fruits, flowers and vegetables as cannot fail to please every visitor, and at the same time convince all that Texas can produce fruits, flowers and vegetables in December equal to any other section of the Southern States.

"Every immigration association, every commercial organization and every organization of real estate men are requested to send delegates. The mayor of every city and town in Texas is a delegate, and has authority to appoint a delegation to this real estate convention. Every county judge in Texas is also a delegate, with the same power as the mayor. The directors of the Texas fruit, flower and vegetable festival intend to do everything in their power to make this meeting of the real estate men of Texas a great event.

"Every editor in Texas is not only an honorary member of the Real Estate Dealers' Association, but is expected to be a guest of honor at the meeting held in Houston December 6. The newspapers of the State have it in their power to make this meeting of special benefit to the Lone Star State, and all newspapers are not only requested to print this item, but to give the same editorial comment."

Mining Machinery Wanted in Alaska.

Skagway, Alaska, October 1.

Editor Manufacturers' Record:

I write to ask if you can put me in communication with some hydraulic mining company or a company manufacturing hydraulic mining machinery. My object is to form a company to work the placer gold claims of the famous Atlin district by hydraulic power. I own a claim on Pine creek, and as the British Columbia law allows only 100 feet to the claim, I realize, with other mine owners, that it would be unprofitable to work individual claims. If I could get estimates and system of working of mining by this power I would be obliged to you. I may add that in the Atlin district is found one of the most beautiful hydraulic propositions in the world. LEWIS GARRISON.

Box 123.

IN MOST HOPEFUL STRAIN.

Reports of Industrial Activity in Different Southern Localities.

Every week are accumulating evidences of the increasing vitality of Southern industry and trade. Through unintentional coincidence, some of these evidences are assembled this week. From several sources have come to the Manufacturers' Record correspondence showing clearly that there is reason for hopefulness and of renewed energy. It happened that within the past four or five days several letters have been received dealing with more than one of the features of Southern life. They are published below, and will be read with gratification on the part of all persons who believe in the South, and who seek its development:

ON A FIRM FOUNDATION.

Prosperous Condition of Industries at Middlesborough, Ky.

[Special Cor. Manufacturers' Record.]

Middlesborough, Ky., October 17.

The recovery from the paralyzing effects of a "boom" is the most difficult problem ever wrestled with by any community. A boom once fairly on its way, with a full head of steam, is cyclonic, carrying everybody off his feet. Business men hitherto known for sound judgment and conservatism fling prudence to the winds, take the reins from the hands of original promoters and drive headlong, forcing prices for real estate to a point never dreamed of in well-established and larger cities. They forget the very existence of the commonest natural laws, and finally, when fever has run its course, spend years in vain regret that they did not "sell out in time" or join in the common denunciation of those who "induced them to invest."

The choice for location with a view to a manufacturing town is, as a rule, made after careful examination of physical conditions by experts. The decision is made after favorable reports are shown with regard to iron, coal, clay, stone, water, timber, railroad connections and climate. Without an exception known to the writer, the favorable conditions actually existing, or as reported, if carefully handled, money economically spent by practical men in development, "boom towns" are not failures, nor is there a total collapse in the realization of promises made by first projectors. The "bust" comes when the money has been "burned" up in extravagant expenditures and often criminal manipulations by directors in acquiring worthless and needless properties. This, and the sinful place-finding for family connections as managers for important industries, is responsible for failure. The duration of the collapse is generally in proportion to the altitude of the boom. Sober second thought finally asserts itself; physical conditions have never changed; iron deposits, coal mines, stone quarries, etc., have been partly developed; the railroad connections often improved; large furnaces, factories and machine shops have either been finished or are in process of construction. People have learned wisdom by bitter experience, and profiting by past follies those who remain, rarely losing confidence in the ultimate outcome, begin to improve their opportunities.

This condition is true of Birmingham, Sheffield, Bessemer and a number of other cities, and especially so with regard

to Middlesborough, Ky. Perhaps twenty millions of dollars were invested in the first mad rush of settlers into this beautiful mountain-locked valley. The town was laid out on a magnificent scale—broad streets, street-car lines, foundries, hotels, public library and public buildings, bridges, breweries and magnificent steel and iron industries were completed. The people were all confident then that the physical conditions warranted such outlay, and the present indications are that they unquestionably did. The "boom," with its professional promoters, has long since departed; the iron, coal and timber, with improvements spoken of, are still with us, and the price of real estate is about the same as in ordinary country towns. The population now consists of about 5000 determined, hard-working, intelligent people, who have gone steadily to work and are today not only developing the natural resources of the place, but see substantial and satisfactory results from their work. We no longer speak of what Middlesborough hopes to do. It is what is actually being done that interests us, and there is enough to convince the most skeptical that there was method in the minds of the original promoters of Middlesborough. Today the Watts Syndicate, who own, perhaps, the best-arranged steel and iron plant in the South, are operating two large blast furnaces, with a possible daily output of 300 tons. The best test of the quality of their iron is the fact that their entire production is sold a year in advance. Their steel plant is in operation daily, the quantity of the steel being of such superior grade that they are unable to fill their orders. Thousands of tons are being sold in Virginia, Kentucky and Ohio, and arrangements are on hand for shipping directly to Manchester, England. But recently they have been compelled to refuse orders for 15,000 tons. The syndicate is building as rapidly as possible (the material now being on the ground) a modern rolling mill that will enable it to furnish all sizes of merchantable steel. It is a fact not disputed that the coal of this section is without equal for steam, gas and domestic purposes. The operations at the Mingo and other mining companies almost at the edge of the town furnish unlimited supplies of coal and coke, and for steam and domestic purposes, at prices, considering quality, that cannot be met by any town in the United States.

Last November the city suffered the loss of one foundry by fire, valued at \$500,000. This blow at the time seemed almost insurmountable. Nevertheless, the conditions being so favorable for the operation of such works, a new company has been formed and are now working up to their full capacity.

The United States Leather Co., employing in the neighborhood of 200 men; the New South Brewing & Ice Co., the Middlesborough Foundry & Machine Co., the water works and the electric-light company and a number of other smaller industries are all being successfully operated. Aside from being one of the best-located towns for manufacturing purposes, Middlesborough is in a most picturesque spot of Kentucky, situated at the base of the pinnacle at Cumberland Gap, and completely surrounded by the most beautiful mountains of the Cumberland range. One mile from the center of the town is Fern lake, by which the town is supplied with water. This lake is

2000 feet above sea-level, abundantly supplied with all kinds of game fish, and affords the most delightful boating and aquatic sports to the citizens of Middlesborough. Middlesborough boasts of one of the best-kept hotels in the State, the property having cost \$400,000. It has recently been thoroughly overhauled under the new management. The encouragement given the hotel by guests from the South this year has been such that numerous attractions will be added for the coming season. A new daily train has been put on between Knoxville and Middlesborough, and next year, owing to our situation as a health resort, all the railroads will give us excursion rates. The pay-roll in this place is larger than that of any other town of the same population in Kentucky. The merchants declare that business is better than at any time since 1890. The demand for labor is increasing, and the supply always short. There is not a vacant residence in the town. The public and private schools are adequate and largely attended. New iron and coal fields are being opened daily; all of the enterprises are backed by sufficient capital and by men who have never lost faith in the ultimate outcome of Middlesborough, and are now seeing a happy consummation to their pluck and energy.

The Middlesborough Commercial Club is ready at all times to furnish detail information to homes seekers or manufacturing enterprises and extend substantial aid to new industries. We appreciate the friendship shown us by the Manufacturers' Record, and wish to assure it that its early prophecies for Middlesborough are all coming true.

H. L. U.

PROGRESS AT NORFOLK.

Interesting Diversification of Its Commercial Undertakings.

[Special Cor. Manufacturers' Record.]

Norfolk, Va., October 13.

At this season, more than at any other, the general trade of this progressive city possesses some very attractive and diversified features. Of the primary industries of the port lumber and cotton are now in full swing, and in each the activity is very pronounced. Indeed, it may be said that in all commercial and industrial pursuits at this port there is a spirit of energy and enterprise which is contributing to the expansion of trade and the building up of a city which, in the near future, will rival any Atlantic port south of New York. When a citizen goes abroad, leaving his native place to better his condition or to spend a decade in enjoying the advantages of travel in the Old World, he is, as a rule, impressed on his return with the changes that have taken place in his absence. In this age of progress, however, a period of several years works wonders in the advancement of cities like Norfolk, and one can witness a development in that time almost unsurpassed in the modern growth of cities. The wonderful trunk lines of railroads entering the city, with their immense warehouses extending along the water front, and the growing traffic in shipping and reshipping freight, are among the marked features which are combining to make this cluster of towns the greater city of Norfolk.

The cotton trade of this port, which is another great factor in development, is one of a most important character, giving, as it does, employment to thousands, and, with the increased equipment of railroads and coast lines, rendering this service second to none south of New York. The net receipts of cotton at Norfolk last season were 609,454 bales, a slight decrease from those of the previous

year, but the actual spot business showed an increase of 38 per cent. over last season. The direct exports were 110,000 bales, while those on through bills of lading reached 300,000 bales.

Mr. E. E. Dawes, statistician of the Norfolk Board of Trade and Business Men's Association, in his review of Norfolk's growth and prosperity, says:

"If I were inclined to tickle the fancies of our well-wishers by way of comparison, I would select some year when all business and enterprise was dull and depressed, but feeling that we are able to stand trial, I will take the 'boom' year of 1890, when all was activity and push. Then our population was 34,541; today the most conservative estimate would not put it below 55,000. In that year the capital and surplus of our banking institutions was \$1,277,644; now it is \$2,197,143. We had then on deposit \$4,080,868; today we have \$5,910,203. The loans were then \$3,447,802; they are now \$4,423,814. By way of comparison I will take some of the many items. For example, the exports then were \$15,090,994; in 1897 they were \$15,399,456. Thirty-nine more foreign vessels entered, with an excess of 139,027 tons, and 122 more cleared, with an excess of 381,151 tons. The receipts of cotton for 1898 were 197,416 more bales than in 1890, while other receipts of merchandise were in proportion. (Here is given a comparative list to show it.) This season there were shipped from Norfolk 12,211,700 quarts of berries, which, at the lowest estimate, seven cents per quart, brought back \$855,519; snap beans, 145,639 baskets, at \$1, \$145,639; cabbage, 329,775 crates, at seventy-five cents, \$240,582; cucumbers, 72,860 barrels and 37,889 boxes, at fifty cents, \$128,224, and last, but not least, King Potato, with a total of 462,894 barrels, at \$2,925,968."

While these figures present to the reader a lucid report of the progress in certain avenues of trade, the organization known as the Business Men's Association and Board of Trade is engaged in other work, and is a most valuable medium through which statistics of the volume of trade in any commercial or industrial channel are disseminated. The organization also possesses many social features, and, with a membership of nearly five hundred of the most prominent business men of the city, is a potent factor in regulating the affairs of industry and commerce. As a great lumber center Norfolk is celebrated, and its North Carolina pine finds a market at home and abroad. The short-leaf pine, in which the region known as the North Carolina pine belt abounds, comes from a territory embracing forty counties in Eastern North Carolina and thirteen counties in Eastern Virginia, containing an area of 15,000 square miles. Ten years ago the North Carolina pine industry was in its infancy, and before that time was manufactured only in small quantities. It is stated that twenty years ago about 30,000,000 feet of this particular wood was shipped from Hampton Roads, while the output now is close to 500,000,000 feet. In this section there are over three hundred saw mills, the output of which is principally handled through this port. The demand for North Carolina pine is steadily increasing, and both inland and coastwise business is at the moment very considerable. There is also a good foreign demand, and in all the principal markets of the United Kingdom and Continent may be found resident agents of the principal lumber manufacturers of Norfolk. In other wood products the volume of trade is also of an extensive character, and among the various woodworking concerns of this

section every foot of timber is being utilized. In the transportation of lumber from forest to mill and on to market barges in certain waterways have been found most effective, and only seven years ago vessels of the canal-boat type, carrying from 50,000 to 100,000 feet of lumber, were used. Today a prominent barge concern owns a fleet of 150 barges, carrying from 300,000 to 400,000 feet each.

As an ally of the timber industry, the creosoting of wood, or the treatment by antiseptics, is of considerable importance, while but little is known of this industry to the outside world. Here in Norfolk a prominent concern having large investments, and known as the Norfolk Creosoting Co., with an extensive and well-equipped plant at Money Point, in South Norfolk, is now operating on an extensive scale. This enterprise since its organization has been very successful, and now enjoys a reputation for the excellence of its work and its adherence in every respect to specifications. The demand for its output comes chiefly from telegraph and railroad companies in this country, while from Mexico, Central and South America, the West Indies and wherever climatic changes or the ravages of insects hasten the decay of wood, there emanates a demand for the creosoting or antiseptic treatment.

One might go on enumerating the various industries which contribute to the growth and prosperity of this city, but having covered hastily some of the leading industries, it might be well to notice some results emanating from the enterprise and energy of the commercial men of Norfolk. Suburban development and other business in real estate has shown wonderful features during the past five years. From the humble cottage of the laborer to the palatial residence of the millionaire there has been a most extensive development. Homes of every description are going up in suburban districts. At Ghent, Park Plaza, Atlantic City, Brambleton, Ocean View, Portsmouth, Berkley and other sections the advance in real estate has been rapid and the demand at the moment not satisfied. A city park is now being laid out which will, in the course of time, be a spot of remarkable beauty if the designs of the commission are fully carried out. It would seem that in every direction throughout the city and suburbs a spirit of enterprise is present, which, with the advantages at hand, will eventually carry out the original idea of the founders of the city over two hundred years ago to make this the great city by the sea.

HUGH WILEY.

BUSY NEWPORT NEWS.

What Industries Do in Developing a City—An Object-Lesson Worth Studying.

[Special Cor. Manufacturers' Record.]

Newport News, Va., October 17.

It is a question if anywhere in the United States can be found a better example of how industries develop and promote the welfare of a community than in this city. It is unnecessary to inform readers of the Manufacturers' Record that it is located at the point where the James river enters Hampton Roads, being the western extremity of the peninsula which lies between Chesapeake bay and James river, and which is skirted on the south by Hampton Roads. Here it is about ten miles across. Three years ago one could ride from Hampton, which is about seven miles from Newport News, to the latter city, and not pass twenty houses until he reached a point a half mile from the main business street of the city. Since that time, however, several

hundred new houses have been constructed in what might be termed the eastern suburbs of the city, while fully one hundred dwellings, stores and more pretentious buildings are in course of erection in various parts of the city. Between Newport News and Hampton one notices progress on every side, and the prediction can safely be made that a few years will find a settlement all the way between the Chesapeake bay and James river, following, of course, the lines of the railroads.

This is the general impression which is made upon the visitor. The real estate operator, the investor or the man who is fond of investigating the reasons for the city's prosperity can find a wide field for study. The result of his investigation will be summed up in the fact that industries alone are at the bottom of it all. It is unnecessary to say that the existence of Newport News is principally due to the existence of the Newport News Shipbuilding & Dry Dock Co. Although the town site is well located, it is a question if the place today would have one thousand people were it not for this great plant. In a general way, people know that factories of any kind are good things for cities, but one can fully appreciate the benefits of such an industry as this only when he has figured out some of the ways it affects the community. At present about four thousand men are employed. The sum of \$40,000 weekly is a conservative estimate of their aggregate wages. Of this sum, three-fourths, or \$30,000, is distributed in the city among the various stores, in payment of house rent, in paying for homes bought on the instalment plan, in assessments for public improvements, and for other purposes. Of the balance, it can be safely said that 75 per cent. is deposited in saving institutions and banks of discount. Not over 5 per cent. of this sum leaves the city. Here is an average of \$5000 expended in Newport News for every day in the year, including Sunday. In other words, enough is paid out from this plant alone to give a third of the population one dollar a day for every day in the year. The amount of \$35,000 weekly is enough to give a score of fair-sized stores a profitable business the year round, and as the people are twenty miles away from Norfolk or Portsmouth, the great bulk of their purchases are made at home; consequently, it is not surprising to note the store buildings which have been completed and are being completed, as well as office buildings, which would be a credit to a city five times its size.

As a further result of this industry at Newport News, an iron and brass foundry has also been built, the product of which is principally used in the shipyard. There are also woodworking factories of different kinds, in addition to a knitting mill and an engine works, but as yet no cotton mill. And here it may be said that in the vicinity of Newport News can be found one of the most desirable localities for cotton manufacturing. Raw material can be brought direct to the plant by water or rail, an abundant supply of fuel is at hand, the climate is well adapted to textile manufacturing, while most of the material for the plant itself can be obtained in the vicinity, the machinery being transported by rail or water as desired. It is the opinion of those best posted that a plant of 50,000 spindles can be operated as profitably here as at almost any point in the South, while the cost of operation can be reduced to an extremely low figure.

But we are discussing the city as it now exists. The establishment of present industries have already given the city a population of fully 15,000. It is calcu-

lated, however, that the shipyard alone will require fully 6000 hands within the next two years. Supposing one-half of this number have families—a conservative estimate—this company alone will be providing for fully 18,000 men, women and children. The large coal piers, the grain elevator and other terminals on tidewater, as well as the Chesapeake & Ohio Railroad, give employment to a large number of hands in addition to the smaller industries referred to. Several hundred men at the shipyard have recently been engaged and are now making preparations to move their families to the city. Many have been prevented from doing so on account of the scarcity of houses, for it is an actual fact that for several months there were really not enough houses within the city limits to provide for its population. The opportunities for real estate operators and builders can be partly appreciated from this statement given. It is not surprising, therefore, to find another city being built in the eastern suburbs, while, as already stated, fully 100 structures are being erected in various parts of the city itself. It may be said here that the development in the eastern section, it is claimed, is in a great measure due to the restrictions placed upon purchasers by a corporation which controls an extensive area of ground in the city. This has tended to divert capital from the property the company in question owns.

These houses range from a neat frame cottage, costing, with its lot, \$1000, to commodious and tasteful dwellings, which will readily sell at \$5000. Altogether it can safely be said that within the last six months the amount of money invested in new dwellings alone has been fully \$150,000. In addition to this, the authorities have adopted a liberal policy in the way of public improvements, such as sewerage, a proper lighting system and other features which are necessary to the prosperity of the city. In a few months \$200,000 worth of bonds have been floated at a satisfactory price, to be utilized in public improvements.

Everyone notices the bustle and life, which indicates progress and prosperity. The business streets are filled with people; the merchants have no time to stand in front of their stores and talk politics, but are kept busily engaged in waiting on their customers. The real estate agents have their time occupied in showing customers locations for investments, while the reputation which the city has already acquired has caused more than one capitalist looking for a good opening to spend a day or so in the vicinity prospecting. We have already referred to the opportunity for constructing a cotton mill in this locality. Another opportunity is offered for building a plant for making steel and iron for naval, bridge and architectural work. The transportation bill of the Newport News Shipbuilding & Dry Dock Co. for armor-plate, engine and other large castings, and, in fact, vessel material of all kinds, amounts to a very large sum annually. The needs of this plant alone would pay the cost of operating such a works as described, in addition to the market which would be afforded both in the United States and abroad. Like the cotton mill, it would have excellent facilities for shipping the material in bulk by vessels, and could secure an extremely low rate, either by rail or water.

D. A. W.

The Tennessee Industrial League has selected January 18 as the date for the convention at Nashville to advance the manufacturing interests of the State. An effort will be made to have a speech upon that occasion from Secretary Wilson, of the U. S. Department of Agriculture.

AWAKENING OF BARNWELL.

Manufacturing Life in the Old South Carolina Town.

Editor Manufacturers' Record:

Barnwell has object-lessons illustrating the transition from the old to the new South perhaps more vividly than the more pretentious cities and towns along main lines of tourist travel. When, a full half-century ago, the South Carolina Railroad was projected as the first step to bringing into Charleston the agricultural wealth of the West, the planter residents of Barnwell, enjoying to the fullest the otium cum dignitate of ample fortunes and calm and serene residences among the primeval oaks on the Turkey Creek hills, objected to the passage of the iron horse through their quiet Eden, lest their morning naps might be disturbed by its untimely comings and goings, and possibly the black pickaninnies, worth a couple of hundreds each, die before and beneath its ponderous weight as the Hindoo was sacrificed before the car of Jugernaut. So, in keeping with that spirit, the fathers of the town, instead of adopting a steeped clock as their measure of the passage of time which might in some degree disturb the still watches of the night by its strokes and tickings, sat upon the public square a sun dial, which, with silent index, continues to point the passage of the sunny hours, but makes no note of the hours of the night or of melancholy cloudy days. And by the way, the wonderfully durable character of the Southern pine is shown in the fact that the pillar on which the dial was fixed stands as strong and sound as on the day it was hewn from the wood.

On the eastern suburbs, in striking contrast with the old-time quiet still prevailing to some extent in the resident west-end section, progress has taken firm foothold and set up industries undreamed of in the old days. Here is the splendidly equipped plant of the Southern Oil Co., the most complete in the State, if not in the South, ginning and packing the standard square bale, 24x54 inches, four to the hour, and having the capacity to manufacture fifty tons of seed into oil and cake. Compare these results with the ante-bellum slowness, when mules were the motive power and sleepy negro lads their drivers, and two bales were the day's work of a then up-to-date gin and screw, and the move the South has taken on is seen.

But another Richmond has taken the field, and the pioneer round-bale plant in the State has been located here, through the indefatigable energy of Col. Mike Brown, a veritable upright steam engine himself in breeches. During the season of 1897 it was completed and put in operation, but too late to give it a fair trial. This season it has made things move from the beginning, and while there is little poetry in machinery, it is an absolute pleasure to see the readiness and steadiness with which the pretty round bales are turned out, five to the hour, as neat as drug-store packages, unlike the ragged, half-covered old bales that made every traveler through the South regard the Southern farmer as a shiftless fellow. In price and popular favor the round bale has made a most successful debut, bringing from one-half to three-quarters of a cent more per pound than the square bale, and farmers are hauling their seed cotton from fifteen miles' distance to the round-bale ginnery, by which they realize about \$2.50 for the day's use of team and driver—no little item these hard times.

Such improvements in a little town on a little railroad without profitable connections or large termini demonstrate

that there is a future in keeping for Barnwell beyond the dreams of her people. The building of the Atlantic Coast Line extension from Denmark to Robbins, on the Port Royal & Augusta, opening a new first-class route for trade and travel between the garden sections of Carolina and Georgia, is the beginning of the development of our new future. Though late the start, the surer will be the finish. It is counted among the certainties that the completion of that connection before the next midsummer will be closely followed by the large investment of Eastern capital, now resting, in a cotton mill that will spin and weave thousands of bales grown within half a day's wagon drive of its location, and that the glories of Sherwood racetrack, famous in the days that were, will be revived in greater splendor than ever and it become the favorite rendezvous for the finest and fleetest-footed racers from Sheepshead Bay to the golden Occident. But I trespass too far on your space, and halt with the suggestion that any capitalist or investor desiring further information can obtain it by addressing our mayor, C. F. Calhoun.

JOS. M. SKINNER.

Barnwell, S. C.

BUILDING AT WINSTON.

New Rails and Connections Planned for the City.

Editor Manufacturers' Record:

In reply to your inquiry concerning the South Bound road, I desire to say that two or three lines are considering the proposition for this road connecting with the Norfolk & Western from this place. The Norfolk & Western, as you are aware, runs from Roanoke here. We desire a through line to the South connecting with this line at this point. We have secured a gift, we may say, from the legislature. It is to this effect: The State will grade the road, survey it, build the bridges, etc., to the South Carolina line by convict labor, and will charge for this convict labor \$125 a year for each convict, and will take this pay, not in money, but in ordinary common stock of the road, not even bonds or preferred stock. We are now organizing the company here. Under a charter to organize the company, \$15,000 stock must be subscribed, and part of this is subscribed today. We shall take the stock, organize and then make terms with some road or some syndicate that will put the thing through in a hurry. This road will be of great advantage to us. The Norfolk & Western people, the Atlantic Coast Line and the Seaboard Air Line are all three making arrangements for it.

The matter is now public property, and I do not think it necessary to regard it as confidential, so may publish the facts in the case if you desire.

Everything is improving here very rapidly. We shall have one or two large furniture factories between this and spring, and the New York & New Jersey Investment Co. has purchased \$125,000 of property here and expects to do considerable building, besides bringing several industries. A company of gentlemen, brought here by a representative of this company, are now about to undertake the erection of a six-story office building and an opera-house. They will return about the 20th of this month, and we hope they will have all their arrangements completed.

Never before in the history of our town has the outlook been so bright and encouraging. I enclose you, under another cover, copies of our city papers, which will show what the Chamber of Commerce is doing at the present time. I believe that this town will show the great-

est progress and development during the next years of any town in the South. We expect to have the best railroad connection in the near future, as an additional impetus has been given by the building of the road from Mocksville to Mooresville, connecting with the Southern by these points to the West and Southwest.

The great manufacturing impetus, however, is the cheap electric power, which is transmitted from the Yadkin river and furnished to all the manufactories at \$20 per horse-power per year.

In addition to this, we are endeavoring to make arrangements to exempt all new industries from taxation, and our people are thoroughly interested and alive.

W. A. BLAIR,
Secretary Chamber of Commerce,
Winston, N. C.

THE SOUTH ENCOURAGED,

Not Appalled, at the Low Price of Cotton.

In reply to the inquiry letter mentioned in last week's Manufacturers' Record additional letters have been received. As a rule they follow the trend of the first letters received, encouraging for the South, in spite of low-priced cotton. They are as follows:

Not as Bad as Formerly.

Earl & Wilson Co., Gastonia, N. C.: "We regard the business outlook as very promising for manufacturing interests, especially, but expect depression in general and mercantile interests, owing to the very low price of the South's staple crop, cotton; however, not to the disastrous extent of former years, when cotton was low, owing to more diversified products of the farm."

Engerness for Enterprises.

Wm. C. Whitner & Co., contracting engineers, Anderson, S. C.: "We cannot see any very material difference in the conditions existing now and at this time last year. Unquestionably the very low price of cotton has a depressing effect in the promotion of new enterprises. However, there are quite a number of important enterprises being projected, and we believe there is just as much eagerness displayed on the part of good business men of this section to go into sound enterprises as there has ever been before. We have quite a number of inquiries from different sections of the South in regard to the development of water-powers and transmission plants, and, judging from these inquiries, we would infer that this class of enterprises were receiving very favorable consideration on the part of business people, and that quite a number of such plants will be constructed in the course of the next few years. From our observation, it seems to us that there is a general desire on the part of people throughout the entire South to develop its magnificent resources, and we find in all branches of business people who are anxious to devote their time and money to such developments. On the whole, we believe the general industrial outlook might be considered good, and we see no reason why the South should not continue its march onward in the direction of developing its resources and building up manufacturing enterprises, so as to become one of the most prosperous sections of the country."

Outlook Much Better.

John T. Wilson & Co., pipe, pipe fittings, etc., San Antonio, Texas: "We consider the trade conditions in our line in this section of country considerably better than they were a year ago at this time. The very low price of cotton has had a demoralizing effect in some sec-

tions and prevented what otherwise, in our opinion, would have been a very good trade season, but the better condition of the stock interests have more than counterbalanced this, and, as above stated, in our opinion, the conditions at present and the outlook is better than at this time a year ago."

Well Supplied With Orders.

Birmingham Boiler Works, Birmingham, Ala.: "Regarding trade conditions in our line the outlook for the coming season is decidedly more hopeful than it was at this time last year. Just at present we are quite well supplied with orders, and have numerous inquiries for prices. On the whole, we consider that future prospects are good, and have no reason to complain of the present volume of business which we have in boilers, tanks, etc."

Business Volume Heavier.

E. C. Atkins & Co., Inc., Sheffield Saw Works, Indianapolis, Ind., Chattanooga branch: "So far as the saw business is concerned, the conditions at present are very satisfactory throughout the South with the exception of the fever-infected territory, and that, of course, we hope will be only temporary. The fever does not stop business to any considerable extent, but it interferes seriously with transportation, and thus affects business to a certain extent outside of the immediate localities infected by the fever. With this drawback removed we look forward to the coming season with considerable hopefulness, and believe the next year will show a considerable increase over 1898. The indications are that this year will be about 10 to 15 per cent. heavier in the volume of business than last year, and about as good as any previous year in our business."

People Buying Furniture.

Rothert & Co., Richmond, Va.: "The furniture and house-furnishing-goods business is booming in this city. Dealers in these lines feel encouraged at the bright prospects of a large business. We find that manufacturers cannot fill orders with their former promptness, which shows that the improvement must be general."

As Reflected in Investments.

F. M. Stafford, of F. M. Stafford & Co., Southern municipal securities, Chattanooga, Tenn.: "While it is not thought that our business by any stretch of the imagination could be called a manufacturing one, we claim it reflects, in a prominent degree, the present condition as well as the outlook for the future. This pretension is based on the fact that all business enterprises, more especially manufacturing ones, are in part at least conducted on a credit basis. Credit being restricted, all business enterprises are necessarily similarly affected. While we deal primarily with the credit of municipalities, the aggregate credit of the individuals comprising the municipality is the basis for same, hence the credit of municipalities reflects that of individuals, and vice versa. Alladin's lamp scarcely ever marked a greater change than that in the credit of the smaller municipalities of the South today compared to what it was two short years since. While the obligations of these places are not one whit better today than they were two, four, six or ten years ago, the contrast as to their position in the financial world is most marked. The situation can be stated as follows: A few years since, in the handling of these securities, the one question was to find a purchaser, the question of price not greatly entering into the transaction. At present the only point is to secure the obligation at such a price as will yield the investor a very moderate return and leave the dealer any

profit at all. While formerly the securities of the smaller municipalities scarcely sold at all, and had to be nursed in every conceivable way to find a market, now they meet with quick and ready sale at high prices. The obligations referred to are those emitted for strictly local purposes, the building of court and schoolhouses, jails, constructing water works, electric-light plants, and for the improvement of streets. The time has come when this class of improvements cannot be considered a luxury, but a necessity. No municipality can expect to make rapid advance in either wealth or population still clinging to a past age. These improvements have been found to be not only profitable in a money sense, but in a higher one, educational, and, as in the case of railroads, in a little while changing for the better the character of the population enjoying them. The North and West realized and acted upon this fact during the years immediately succeeding and since the war. The South, on account of the prostrate condition it found itself in, and the terrible wrench in its social life consequent upon the war, is only beginning to be able to do so. What has brought about the transmutation alluded to, and what is the lesson to be derived from it? Municipal bonds have stood the strain of the past few years of troublous times far better than any other class of obligations, hence the demand today is far greater than the supply. A few years since savings banks were the principal absorbers. Now banks of all kinds, insurance and trust companies, as well as individual permanent investors, are all eager customers. The smaller municipalities of the South should not be slow in taking advantage of the present plethora of money, and where any local improvements are contemplated or needed issue bonds now. It is not at all certain that present conditions will always be with us, and the old adage of making hay while the sun shines is most applicable. As your valuable journal is devoted in part to the upbuilding of this section, do not think its columns could be used to better advantage than letting above facts be well known, and urging that advantage be taken of same."

Southern Cities Growing.

V. H. Kriegshaber, Atlanta Terra Cotta Co., Atlanta, Ga.: "While the outlook for an active building supply business is not very promising the remaining months of the year, yet we expect to be very busy next year, and do not think we will be disappointed, either. The Southern cities are growing steadily, and in response to business demands. I am happy to say there is no boom about it, just a strong, healthy growth, and that is the best kind after all."

Enlarged His Plant.

John F. Riley, machine and boiler works, Charleston, S. C.: "Whilst the past year has not been as satisfactory as it might have been, still the last few months have given much encouragement, and the outlook now is quite bright, so much so that I have been induced to enlarge my plant by the addition of a brass and iron foundry to my present machine and boiler shops. Competition is very sharp, but the iron works here are kept pretty busy, and certainly are all in better condition today than they were a year ago."

Orange Belt Recovering.

Wilson & Toomer Fertilizer Co., Jacksonville, Fla.: "The outlook in the fertilizer business in Central and Eastern Florida is very promising. The groves that were so badly hurt by the freeze of '94 and '95 are rapidly recovering their old size, and there will be fruit shipped

from them in nearly every county of the orange belt this year, and we estimate that next year's crop will be in the neighborhood of a million boxes. This naturally will improve the fertilizer business in this part of the State very materially. This increase, together with the new interests that are being developed, viz., tobacco, pineapples and truck, promises an increase in the demand in our line during the coming year. As we confine ourselves to a cash business, we do not do anything in the cotton belt, but no doubt dealers who are interested in that product will give you full information regarding it. As far as the central and southern parts of the State are concerned, we will say that the growers and farmers are in very good condition."

Look for Good Business.

E. C. Atkins & Co., saw and tool manufacturers, Memphis, Tenn.: "Owing to the yellow fever and continued quarantine conditions existing throughout this section of country, business has fallen off very much indeed. Everything seemed to be very promising and prosperous up to about a month ago, but these unfortunate conditions of affairs came upon us. Now as to the outlook, we can hardly say, but really think as soon as the fever is over that business will improve very much indeed, and we look for a good business during the winter months. As you know, business depends very much indeed upon the condition of things here in this section, as to whether we have too much rain or too little, but if we have good weather between now and spring, expect business conditions will be good. As far as our manufacturing interests are concerned, would say our factory at Indianapolis is very busy indeed, and has been so for several months, and the outlook is for a continuance of same."

Better Than for Years.

J. B. Walker, Centreville, Tenn.: "This section is in better condition, as I see it, than for years past. There is, comparatively speaking, no cotton grown in this (Hickman) and adjoining counties. The land along Duck river is as rich as the Nile, and the crops are never poor on the bottom lands. There are, and ever will be I suppose, some unfortunate people, some trifling ones, and a few croakers and demagogues. But the rank and file of the farmers are doing well. The small farmers on the creeks and high lands are in better shape than ten years ago. In a word, the energetic and prudent people, barring misfortune, are thriving."

SMALL ORDERS ENCOURAGED.

Stiffness on the Part of Birmingham Producers.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., October 18. The same conditions that have surrounded the iron market here for several weeks past still prevail. There is no absence of demand. While it can be characterized as only moderate, it is yet greater than the desires or ability of the furnaces to supply. Only small orders are encouraged, and those have preference that come from regular customers. On the basis of \$7.75 for No. 2 foundry all orders are executed, and it has happened that sales have been made at some advance above that. The assortment of grades is very ragged, and furnaces are frequently embarrassed by an unexpected shortage in some particular grade. There is no evidence yet of a disposition to sell for the long-deferred deliveries of 1899, the outlook in the near future justifying the anticipation of better values for 1899. The warrant yards continue to be drawn upon to supply furnace deficiencies, and stocks there, as well as in furnace yards,

are still being depleted. Iron warrants are difficult to obtain, and when they can be had are at prices that enforced necessity only can pay.

The export inquiry was breezy, but the sales were very few, as the same conditions that restrict the domestic trade affect the export trade. It is so seldom that the present condition of affairs prevails that it is difficult for buyers to realize it.

To see for himself what progress was being made on the steel mill at Ensley City, the writer made a visit there. Until one goes there and takes in the outlines of the ground plans of the immense buildings to be erected he cannot realize the magnitude of the plans. Six months ago their site was a corn field. Considerable time and much labor were required to assemble material and lay the foundations for the various parts of the plant. All that the untutored eye can see is a few pillars and leveled-off ground. Yet there has been used in these foundations and in sewers connected with the various sites 5000 barrels of cement, 7000 barrels of sand and more than 50,000 barrels of concrete. Their one single order for brick was the largest ever recorded since the tower of Babel was undertaken, and 3,000,000 will hardly cover the number the plant will absorb. Right alongside of the open-hearth plant the ground is staked off for the rod and nail mill, but no further work on it has been done yet. Yesterday the erection on its foundations of the first of the ten huge stacks was commenced. In reply to the question, What time have you set for commencing to turn out steel? Colonel Shook replied: "We will lose no time in pushing all matters connected with the plant." In such enterprises there will always be unexpected and unavoidable delays, and it seems safe to guess that a full year will roll around before steel will be made at Ensley City.

The Avondale Cotton Mills are making, they say, all reasonable progress in getting things in good running order. The most of their labor they had to teach from the initial point, and so far have just about half their looms at work. The kind of labor they desire they have had difficulty in obtaining. They have plenty of room for willing, steady labor.

J. M. K.

Eastern Iron Markets.

[Special Cor. Manufacturers' Record.]

Philadelphia, Pa., October 19. Quotations for all mill and furnace products remain where they were, and the business done during the past six days shows no increase outside of the placing of a very large order or two that has been under consideration for some time. The remarks made a week ago fit about as well this week. That which attracts special interest is the opening up of conditions and of possibilities. The momentum of demand is being more clearly comprehended. It is increasing. The particular point of interest is to what may it carry us. Some go so far as to say it means an actual scarcity of pig iron next spring. When one adopts a theory, it is an easy matter to find facts to fit it and support it. For instance, the decrease of 60,000 tons stocks in a month is pointed out as a significant fact. True, there is an increase of some 2000 tons per month which is being extended, but many see an unexampled expansion of demand, which a few thousand tons increase per month would not affect. The possibilities of a much heavier export trade are being dwelt upon, and the recent receipt of some large orders at Southern furnaces, and the fact of inquiries there for much larger quantities than have ever yet formed the subject of negotiation,

are all taken as evidences that the country may be on the eve of a pig-iron demand which it may not be able to meet. The modernizing of some furnaces is proposed. A little advance will let in a number of antiquated plants, but this fact means the hurried construction of more furnaces, a possibility now in sight. On the other hand, conservative authorities believe a weekly production of 250,000 tons, which is easily attainable, will provide for the actual requirements of the country under existing conditions. That, after all, is the question. The export requirement is a new and comparatively unknown factor. The merchant marine will put a new face on the whole export-trade matter. The subject is one of growing interest and importance.

Reported Copper Discovery in Alabama

Mr. E. D. McClelen, mayor of Piedmont, Ala., writes the Manufacturers' Record that he has discovered and to some extent opened up what he thinks promises to be a very valuable copper property. The opening made is at the base of a hill about seventy-five feet high. Outcroppings are found on top and along the sides of this mountain, and every indication, Mr. McClelen says, points to a big deposit of very high-grade ore. An investigation from people interested in copper properties is invited.

West Virginia Coal.

In commenting upon the development of the coal industry in West Virginia, the New York Times says:

"The line of progress has been along the Norfolk & Western, the Chesapeake & Ohio and the Baltimore & Ohio systems of railroad. Largely owned and controlled by the carrying companies, the interests of mining and shipping coal have been favored with low rates, so that the market has expanded, and West Virginia coal is known in all parts of the world. As an evidence of the growth, Marion, one of the northern counties, may be cited. When the coal development was started in that county in 1887 the output was about 100,000 tons, while this year it will be over 2,000,000 tons. But even with this immense output, the coal industry of the county is in its infancy. There are thousands of acres of the best coal lands, notably the Pittsburgh seam, where the veins run from eight to fourteen feet, which are as yet untouched by the pick or drill."

Coal and Coke Production.

The reports on the manufacture of coke and of the production of coal in 1897, by Mr. Edward Wheeler Parker, statistician of the division of mineral resources, United States Geological Survey, have been published. These reports are standard reference books for persons interested in the subjects covered by them. One of the features of the report on coke is the section devoted to the development of by-product coke-making. The section dealing with machine-mined bituminous coal in the report on the production of coal is valuable.

Trained in the South.

The Georgia School of Technology has graduated in the nine years of its life seventy-eight young men, who are scattered through fourteen States. Sixty of them are in Georgia, and the others in Alabama, Arkansas, Maryland, New York, North Carolina, Mississippi, District of Columbia, Massachusetts, Louisiana, Ohio, Pennsylvania, Virginia and Washington. The graduates are to be found in cotton mills, machine shops, technical institutes, lumber companies, electrical works and engineering firms.

THE COTTON-SPINNING INDUSTRY.

Mr. Thomas Ellison's Comparison of the North and South.

Mr. Thomas Ellison, of Liverpool, England, probably the most noted authority in the world on cotton, sends to the Manufacturers' Record a copy of a letter which he has written for the Liverpool Daily Post, in which he discusses the growth of cotton-spinning in the United States. Mr. Ellison writes as follows:

"The recent extraordinary growth of the cotton-spinning industry of the Southern States is naturally engaging the anxious attention of the New England and other Northern mill-owners, whose business has of late years been very seriously affected by the constantly-increasing competition of their Southern rivals, who, in their turn, do not hesitate to say that it is only a question of time for the South to become the center of the cotton-spinning and manufacturing industry of the United States, on the ground that, other things being equal, cotton mills worked in the neighborhood where the raw material is produced must necessarily have a considerable advantage over mills built at a long distance from the plantations. 'Other things being equal;' but prior to the abolition of slavery other things were not equal, and for many years after the disappearance of that peculiar institution there was no change in this respect, while even yet the North has some advantages over the South in respect of the production of the higher counts of yarn and the finer makes of piece goods.

"The relative positions of the North and South in the matter of cotton consumption is shown in the following statement, based partly upon the census returns and partly upon the figures published in the New York Financial Chronicle, in 1000's of bales of the uniform weight of 500 pounds:

	Consumption.	Proportion.				
North.	South.	Total.	North.	South.	T'1	
Seasons.	Bales.	Bales.	p.c.t.	p.c.t.	p.c.t.	
1849-50..	539	77	616	87.50	12.50	100
1850-51..	648	80	723	89.01	10.99	100
1851-52..	730	79	809	90.24	9.76	100
1852-53..	1,423	162	1,585	89.78	10.22	100
1853-54..	1,682	503	2,185	77.00	23.00	100
1854-55..	1,940	803	2,743	70.73	29.27	100
1855-56..	1,711	861	2,572	66.52	33.48	100
1856-57..	1,776	962	2,738	64.86	35.14	100
1857-58..	1,808	1,154	2,962	61.04	38.96	100

"There was very little relative change between the two sections in the course of the thirty seasons ended with that of 1879-80, and that little was in favor of the North. The labor system of the South was not favorable for the development of the cotton-manufacturing industry; the slaves could not work in cotton-spinning mills, and white labor would not. Between 1859-60 and 1869-70 the labor system was more or less disorganized, and even between 1869-70 and 1879-80 very little progress was made (in the matter of cotton-spinning at all events), but between 1879-80 and 1889-90 the South made a distinct advance, while since then the gain over the North has been in leaps and bounds. This is shown clearly enough in the above table, while it is still further demonstrated in the following comparative statement of the weight of cotton consumed, in millions of pounds, and the per capita rate of consumption in the two sections. The figures for 1895-96 and 1896-97 are omitted, as being unnecessary to illustrate the point discussed:

	Consumption.	Per Capita.				
North.	South.	T'1	North.	South.	T'1	
Seasons.	lbs.	lbs.	lbs.	lbs.	lbs.	
1849-50..	269.5	38.5	618.0	18.86	4.32	13.28
1850-51..	323.7	40.3	364.0	16.18	3.52	11.57
1851-52..	395.0	39.5	404.5	13.97	3.17	10.50
1852-53..	711.5	81.0	792.5	21.80	4.62	15.79
1853-54..	841.0	251.5	1092.5	20.41	11.73	17.44
1854-55..	970.0	401.5	1371.5	21.25	17.45	19.98
1855-56..	904.0	577.0	1481.0	18.45	24.04	20.68

"The reduction in the total consumption per head between 1849-50 and 1859-60 was due to the increased import of cotton goods and other clothing material from Great Britain, under the moderate tariff then in force. The further decrease between 1859-60 and 1869-70 was due to the high prices then ruling, owing to the reduced production of cotton during and for some years after the war, and to the increased consumption of linen and woolen fabrics. The rapid increase since 1869-70 is due to the enlarged production of cotton, to the fall in prices, and to the consequent displacement of other textiles.

"In view of the foregoing facts, it is not surprising that the South, after having, until recently, been a large buyer of Northern-made cotton goods to supplement her own deficient production, is now a large seller to the North of goods produced in excess of her own requirements. As already shown, this transformation has practically taken place during the past eighteen years—slowly at the beginning, but rapidly towards the close. Assuming the weight of goods produced to be the same as the weight of cotton spun, and deducting the estimated weight of goods exported, we get the following comparison of the weight of goods consumed—total and per capita—in the United States (aside, of course, from cotton goods imported). All the figures are in 1000's except the pounds per head:

	1879-80.	1889-90.	1894-5.	1897-8.
Goods produced.	792,500	1,062,500	1,371,500	1,481,000
Less exported.	41,000	46,000	71,000	92,000
Goods consumed	751,500	1,046,500	1,300,500	1,389,000
Population.	1879-80.	1889-90.	1894-5.	1897-8.
Northern States	32,631	41,195	45,642	49,000
Southern States	17,525	21,427	23,000	24,000

Total	50,156	62,622	68,642	73,000
Consumption of goods per head	14.98	16.71	18.94	19.02

"Of course, the weight of goods produced will be somewhat less than the weight of cotton spun, owing to the waste of cotton in spinning, but the difference will not materially affect the final conclusions set forth in this review of the situation.

"On the assumption that the per capita consumption of cotton goods is the same in both sections of the United States, the division of the above total quantity consumed will be as follows, in 1000's:

	1879-80.	1889-90.	1894-5.	1897-8.
Northern States.	488,900	688,400	804,700	932,400
Southern States.	262,600	358,100	435,800	456,600
Total as above.	751,500	1,046,500	1,300,500	1,389,000

"The weight produced in each of the two sections compares as follows:

	1879-80.	1889-90.	1894-5.	1897-8.
Northern States.	670,500	795,000	999,000	812,000
Southern States.	81,000	251,000	401,500	577,000
Total as above.	751,500	1,046,500	1,300,500	1,389,000

"The per capita value of the goods consumed in the North will probably be much larger than that consumed in the South, but the per capita weight of goods consumed in the South will be quite equal to that consumed in the North, owing to the larger consumption in the South of the coarser makes of goods.

"On comparing the weight of goods produced in the North with the weight consumer, we get the following result:

	1879-80.	1889-90.	1894-5.	1897-8.
Goods produced.	670,500	795,000	800,000	812,000
Goods consumed	488,900	688,400	864,700	932,400
Exported to South.	181,600	106,600	34,300	.....
Imported from South	.....	.....	.....	120,400

"These figures show a gradual but serious loss of custom to the North, which very largely accounts for the unsatisfactory state of the business in that section, and which has from time to time forced the mill-owners to curtail the output of their spindles and looms. On the other hand, the figures relating to the South compare as follows:

	1879-80.	1889-90.	1894-5.	1897-8.
Goods produced.	81,000	251,500	401,500	577,000
Goods consumed	262,600	358,100	435,800	456,600
Import from North	181,600	106,600	34,300	.....
Export to North	.....	.....	.....	120,400

"These figures are the reverse of those shown in respect of the movements at the North, and they show that the South has not only, on balance, made herself independent of the North, but that she has also shipped a large quantity of goods to the North in successful competition with the products of the New England and other mills, while they account for the exceptional prosperity of the Southern mills during the past season, which not only enabled them to work full time, but in many instances to keep their establishments at work night and day.

"If the actual movements of cotton goods between North and South could be ascertained they would probably be found to differ from the foregoing estimates, but the difference would not affect the conclusion drawn, which is that the cotton-spinning and manufacturing industry of the South has of late years rapidly increased in magnitude, whereas that of the North has either decreased or remained stationary. The figures showing the approximate weight of goods sent from the North to the South, or from the South to the North, represent only what may be termed the balance of trade. The South will receive more fine goods from the North than the above calculations indicate; but, in exchange, the South will send more coarse goods to the North."

THE COMING SOUTH

To Share in the General Advertisement by the War.

[Columbia (S. C.) State.]

The war with Spain has brought the United States into a prominence never before achieved. Their extent, resources, industries and capabilities are now in the world's eye. A great light has been turned upon this country and this will mean a development more rapid and enduring than any that has yet overtaken any portion of America.

Mr. Richard H. Edmonds, editor of the Manufacturers' Record, in a recent interview, said to a reporter of the New York Commercial Advertiser:

"From this general advertisement of our entire country the South ought to be able to receive the greatest benefits, and these benefits will be in proportion to the growing appreciation in which the civilizing, safeguarding force which we call Anglo-Saxonism, standing, as it does, for aggressiveness tempered by fair play, is upheld and lived up to by the people of that section and in proportion to the energy displayed

an outcome of quickened business life, the extent of which is now but little comprehended. * * * Mr. Edmonds further adds that no other instance is recalled where one section of country has a monopoly of a great staple. We cannot agree with him, however, and Mr. D. A. Tompkins, of Charlotte, N. C., that the low price of cotton is of benefit to the South. It does insure a monopoly and is of great benefit to mill men, but it is hard to tell wherein consists any real good to the farmers in the monopoly of an unprofitable crop.

Coming to iron, Mr. Edmonds says that, according to his information, the South is today making iron at a lower cost than any country in the world, and Alabama is dictating the price in the world's markets, and it is reasonable to hope that Alabama will enjoy the like supremacy in the manufacture of steel. The fact is cited that England's commercial supremacy has been based mainly upon coal, iron and cotton. These three industries have passed out of her hands, and this country controls them, and the South easily leads any portion of the country. * * * All of which is a highly gratifying statement of the future before the South and all the more so since it comes from one who has done more to exploit Southern resources than any other living man. After reviewing the situation further, and noting that the resources and extent of the United States exceed that of all Europe combined, Mr. Edmonds concludes that "the South today constitutes a focal spot of opportunity for the energies and capital of the world."

And we trust that at least a part of this heritage will come to Southern men. Indeed, it must, if they are alive to their opportunities and will go resolutely to work to develop the country. God has given them without too much reliance on foreign aid. There are few industries in this region which cannot be handled by Southern capital and energy. Very little is needed from abroad. Southern men need to rely on themselves. That is their lesson—the gospel of labor and self-help—which it were best for them to learn and to act on.

Competing for Mexican Trade.

The competition of Southwestern exporters in Mexican trade is being severely felt by export business in the metropolis. Commenting on the situation the New York Journal of Commerce says: "According to the latest advices, a large contract for hardware and machinists' supplies which was recently put to test by competition between a St. Louis concern and New York parties was successfully taken by the former at much better prices than those quoted by the latter. As the contract is said to be a large one, and includes a wide range of manufactured articles, considerable interest has been manifested in the contest. Parties in a position to know say that the reason why in certain articles St. Louis is better able to compete is the fact that the manufacturers in the Southwest are making special efforts for Mexican trade, and the wholesale dealers are aiming for the trade also. So extensively are the dealers speculating in certain manufactured goods that frequently you can buy in St. Louis iron and steel in the manufactured form far below the manufacturers' prices."

Ex-Mayor Herman Myers, an extensive merchant and capitalist of Savannah, has gone to the West Indies, investigating the opportunity for trade between Savannah and these islands. Mr. Myers will visit Cuba, Porto Rico, and study the conditions of the principal cities.

COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

Iron at New Orleans.

In an interview in the New Orleans Picayune, Mr. W. J. Ryan, general manager of the Southern Coal & Iron Co., of Birmingham, Ala., is reported as speaking as follows:

"It may not be a fact with which your people here are generally acquainted, that the exportation of the Alabama iron products is gradually assuming a magnificent proportion. Indeed, but for the exportations during the past season Alabama markets would have suffered. What will appeal to your people as a matter of more interest is the fact that New Orleans is generally regarded as the exportation point for all Alabama iron products. As you may know, there has been a vast amount of pig iron exported through here during the past few months. Well, the business has hardly started. Another season and there will be a large increase in exportations. The claims made by Mobile and Savannah for this business are not well based, for there the ocean tonnage is not to be had. New Orleans will gradually assume more prominence as the largest iron exportation point in the United States, for the day is fast coming when the vast unlimited iron resources of Alabama will bring that section in the front rank of the iron-producing regions of the country."

Referring to the possibilities of New Orleans as an iron exporter, the Times-Democrat says:

"The business is one well worth handling. It is a growing and most promising trade, for it has been demonstrated during the last eighteen months that Alabama iron can be exported with profit to all parts of America and Europe in competition with the English product. There is practically no limit to the business, and it is likely one to greatly increase their output, and, therefore, their export, of iron this year; and they are looking around for a port through which they can ship their 'pig.' There are three Southern ports favorably situated for handling this business—New Orleans, Mobile and Savannah. Mobile is the nearest of the three, and Savannah the most distant, but the Alabama manufacturers see in New Orleans the best port for themselves for a number of reasons. The most important of these are the large ship tonnage of New Orleans and the numerous steamship lines from here, connecting with all the leading foreign cities. Its advantages for this trade are so marked that a good portion of it is likely to come here under all circumstances, but its development will be far more rapid and certain if New Orleans shows some interest in it by securing favorable railroad rates and whatever facilities are needed for handling the business."

A Large Coal Fleet.

In recent issues the Manufacturers' Record has referred to the transfer of a fleet of lake vessels to the Atlantic Transportation Co. for the purpose of carrying coal from Newport News to Northern markets. It is stated that forty-six vessels are included in the charters, which range from three years to five years.

Of the fleet of forty-six vessels, thirty-nine are schooners and seven are schooner-rigged barges, with sufficient sail area added to be self-propulsive in case of separation from a tow. The net capacity of the fleet of lake vessels is

71,500 tons, and the company expects to construct in shipyards along the lakes another fleet of twelve to fifteen schooners of perhaps 45,000 tons burden in all. The company already has a large number of steamers, tugs and barges, and, with the new fleet, will have one of the largest combinations of floating property in the United States. It has a four-year contract with the Chesapeake & Ohio Railway to handle its total output of coal and coke which goes to Eastern markets, involving the movement of 4,000,000 tons annually from Newport News to New York and other coast ports.

Walter S. Besse, junior partner of Sherwood & Besse, general agents of the company, has been largely instrumental in the acquisition of the new fleet, and is at present visiting lake ports in connection with the movement to ocean waters. The majority of the vessels are now in the St. Lawrence river.

Twenty-four of the vessels were chartered in Cleveland, ten schooners and one barge in Detroit, and others at the following ports: One schooner at Buffalo, one barge at Bay City, one at Menominee and one schooner each at Toledo, Chicago, Port Huron, Milan, Lorain and Milwaukee.

More Improvements at Charleston.

The terminal facilities at Charleston, S. C., have been greatly increased by the construction of a new wharf for the South Carolina & Georgia Railroad Co. in that city. The new wharf is about 500 feet in length and 100 feet in width. The depth of water around it ranges from twenty-five to thirty-five feet, giving sea room for the largest vessels entering this harbor. The wharf is constructed in a most substantial manner, the piling on which it is supported being covered with galvanized iron sheathing. With this wharf the railroad company now has four for the use of its coastwise and export business. One of these is used by the Charleston & Boston Line of steamships, another is devoted largely to shipping cotton and pig iron, while a third contains a grain elevator.

American Shipping.

According to the official report of the bureau of navigation for the year ending June 30, the American merchant shipping on June 30, 1898, comprised 22,705 vessels of 4,749,738 gross tons, compared with 22,633 vessels of 4,769,020 tons on the like date in 1897. The decrease of 19,282 tons is more apparent than real, as 11,000 tons of this amount is due to dropping fractions of tonnage in the accounts, and 66,713 tons were sold to the Navy and War Departments to carry troops, supplies and provisions, and have merely changed employers. The total steam tonnage amounts to 6712 vessels of 2,371,923 tons, compared with 6599 vessels of 2,358,558 tons for the previous year.

Steamships from Charleston.

The Charleston Transport Co., operating a service between Charleston and Europe, it is stated, will for the next four or five months have ships clearing for Manchester, Liverpool, Hamburg and Bremen, with cargoes of cotton, iron, flour, grain, oil, lumber, cottonseed meal, etc. There are a number of ships which make regular trips between Charleston and these ports, and many others will be needed during the cotton season to keep up with the large business which this company has worked up. The first of the steamers to be cleared for the cotton season by the Charleston Transport Co. was the Juno, which sailed with 7300 bales of cotton for Bremen.

Texas & Pacific Terminals.

The wharves being completed for the Texas & Pacific Railway Co. on the Mississippi river, near New Orleans, will be 1200 feet in length. They will be covered, forming practically large warehouses, which will greatly increase the company's facilities for shipping cotton and other exports. They are supported on piles which are creosoted. With the additional facilities the railroad company will have 3000 feet of wharves on deep water at this point. The company has also secured a boat, which is 300 feet long and eighty-seven feet in width, which will be used for transfer purposes. It cost \$85,000, and was built at Dubuque, Iowa.

Coaling at Baltimore.

A number of foreign steamships have recently come to Baltimore for fuel, instead of stopping at Newport News or Norfolk. This is due largely to certain regulations at Hampton Roads, which require vessels from Southern ports to remain a certain length of time unless they have a bill of health from the last city at which they stopped. Recent arrivals at Baltimore for bunker coal were the steamship Croatia, from New Orleans for Hamburg, and the steamship Souna, which also cleared from New Orleans.

For Savannah's Trade.

Messrs. Isaac G. Haas, A. B. Moore and A. E. Moynello have been selected as special commissioners from Savannah to visit Cuba and Porto Rico to study the business situation in those islands, and to determine the best means for the extension of Savannah's trade to them.

Jottings at the Ports.

The Morgan Line of steamships between New Orleans and Havana will open November 5, to run regularly thereafter.

It is reported that a company may be formed at Savannah for towing purposes which will secure several large tugs to be used in the harbor along the coast.

The Columbian Iron Works, of Baltimore, is building an ocean towboat for the Consolidation Coal Co. of that city. The boat will be utilized in towing barges from Baltimore to Northern ports.

The largest cargo of cotton yet shipped from Wilmington, N. C., was recently cleared on the British steamship Tenby. It consisted of 14,642 bales, valued at \$408,572, and was shipped to Liverpool by Messrs. Alexander Sprunt & Son.

The Chamber of Commerce of Mobile has prepared a pamphlet, which sets forth the advantages of Mobile as a market for the West Indies. The pamphlet includes several excellent illustrations, and is printed in Spanish for distribution in the West Indies.

The Morgan Line of steamships, operating in connection with the Southern Pacific Railway, have begun arriving and clearing from Sabine Pass, Texas. The first vessel arrived October 9. Wharves and warehouses are being completed for the accommodation of this business.

In a letter to the Manufacturers' Record a correspondent at Pensacola, Fla., writes that the establishment of foreign passenger business to and from that port has been agitated from the fact that a steamship recently arrived with 409 immigrants from Italy. There is a possibility that the Louisville & Nashville Railroad Co. may encourage it. Large quantities of cotton, grain and pig iron are now being exported from Pensacola, reaching the city by way of the same railroad system.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

AN EXAMPLE FOR ALL RAILROADS

Is the Work of a Few in the Upbuilding of the South.

For many years Western railroads have led the country in the beauty of the literature issued to attract attention to their territory. They have not only done this, but they have regarded as of equal, if not greater importance, the highest class of newspaper advertising and the most liberal support of all legitimate newspaper work having this end in view. It is to this common-sense policy of the railroads, aided by the same kind of work on the part of the people, that the wonderful progress of California, Oregon, Washington and many Western States is largely due. The managers and the owners of such roads realize that these expenditures are just as essential to permanent prosperity as is the maintenance of their rolling stock. Unfortunately, comparatively few Southern railroad people yet take this plain, common-sense view.

In part this is due to the stockholders, who have not been educated to the necessity of it, and in part to the fact that a good many officials are men of small caliber and narrow views. Fortunately, however, two or three roads, notably the Southern Railway Co., the Illinois Central, the Plant system, the Nashville, Chattanooga & St. Louis, the Atlantic Coast Line, the Seaboard Air Line and a few others, are run on a different basis, and it is possible that their example may lead others into the same good work.

The Southern Railway Co. has just issued, at a very large expense, a magnificent volume, entitled "The Empire of the South," which is artistic and beautiful enough to adorn any library, and which equals the best work issued by any Western line. Such a work is a credit to the road, and must prove of very great value to the entire South. It is a book which a great system such as the Southern can afford without curtailing its regular expenditures for attracting capital and immigration, and in this particular this road deserves the commendation of the entire South for the broad scope of its work and the persistency with which it is pushed.

When the old Richmond Terminal, which for several years had been a football for a lot of speculators, and which, because of its financial and physical condition, rather retarded than aided Southern development, was taken hold of by Morgan & Co. with a view to reorganization, the Manufacturers' Record said that it regarded the entrance of the Morgan interests into the Southern railway field as of tremendous importance to the whole South. "Their reorganization of these bankrupt properties and the development which they will necessarily help to bring about" will, the Manufacturers' Record said, add to the prosperity of the entire territory tributary to these roads. Notwithstanding the long period of financial and industrial depression through which the country has been passing since this system was reorganized, we can see many evidences of the great work already accomplished. Partly through the co-operation of this company the building of the steel plant at Birmingham, which is the greatest single factor in Southern industrial development for several years, has been made possible; through the work of the same company Alabama coal is displacing Pittsburgh coal on the Mississippi, thus opening a market which

has consumed millions of tons of Pennsylvania coal; some of the great cotton mills which have been built South by New Englanders have come, in part at least, because of the work of this line; Norfolk's terminal facilities have been vastly increased by this system, the number of good settlers which it has located South already runs up into the thousands, and in every direction are proofs of its active work. These are but a few of the many things for which the South is indebted to the management of the Southern Railway Co., and the publication of this new book makes timely these words of commendation.

But because the Southern Railway Co. has published this beautiful book it does not follow that it would be wise for all other Southern roads to attempt to imitate it. When they are willing or able to spend as freely as the Southern does for the maintenance of an industrial and immigration department, and for the great campaign of education which it is carrying on to let the world know about the South and the South's resources, then they, too, will be wise in publishing such an artistic presentation of the "South beautiful," but not till then.

The foolish yellow-fever scare, which is often made much of by outside papers for the express purpose of keeping people and capital from the South, must force Southern railways, not only those operating in Louisiana and Mississippi, but all in the South, to redoubled energy in making known the attractions and advantages of the South. Yellow fever is not half so dangerous (nor are its victims one-tenth as numerous) as diphtheria, scarlet fever, typhoid fever and many other so-called preventable diseases, but it has been given a bad name, and the whole South must suffer accordingly. It is in the power of Southern railroads to very largely overcome this, but they must be at work, and not expect a few roads to do it all.

Purchase of a Kentucky Line.

The recent sale of the Richmond, Nicholasville, Irvine & Beattyville Railroad to a Northern syndicate has aroused considerable interest as to the intentions of the new owners. The syndicate, it is stated, includes the following: A. E. Fawke, Liverpool, England; G. P. Mangan and Alex. Fraser, Toronto, Canada; G. W. Evans, C. D. Chenault, C. H. Chenault, J. S. Powell, B. B. Million, D. W. Chenault, J. C. Chenault, G. W. Evans, Jr., J. B. Chenault, of Richmond, and Col. Bennett H. Young, of Louisville. This syndicate, it is stated, has already purchased some fine timber land in Powell, Estill and Lee counties. There is said to be 25,000 acres of this land, for which \$35,000 was paid, and saw-mill plants, for which \$10,000 was paid, at Irvine, the terminus of the road.

It is reported that arrangements are being made to extend the line a distance of thirty-five miles from its present terminus to Beattyville, Ky., which was the intention of the original owners. The line is to be called the Richmond & Louisville Railroad. It is also stated that a large sum will be expended in improvements.

Southern Pacific and Galveston.

For some time past, as readers of the Manufacturers' Record are aware, the Southern Pacific Railroad Co. has been negotiating for terminals of its own at Galveston harbor. According to the Galveston News, Mr. Huntington is quoted in an interview on the matter as follows: "Some of our people are at present interesting themselves in Sabine Pass, but that is altogether a different proposition.

That does not involve any money. Galveston would call for at least a million dollars, and perhaps several million, before we are through. I don't believe in changing established channels of trade. Galveston is the one city on the Gulf that with a wise and liberal policy will become in a short while the chief city draining the great West. It will not assume this commanding position without an effort on the part of its citizens. It must enter into the spirit of progress and utilize its incomparable advantages of location. As a shipping depot for the export of grain, not to mention cotton and other products, it ought to outrank any other. With the advantages of shipping it has, a great commercial city will eventually rise. We have always wanted to do business via Galveston, especially since she has secured deep water, but we must have facilities; we need room, and lots of it, for we have a large rail mileage to serve, and several water lines that we would wish to supply terminals for at Galveston, and, of course, we expect to grow. I believe you will find the Western rail lines will follow gulfward, concentrating at Galveston in short order if the proper inducements are offered."

Improvements to Southern Lines.

Among the Southern railway companies which have been carrying out extensive improvements to the physical condition of their systems are the Illinois Central, the Louisville & Nashville and the Nashville, Chattanooga & St. Louis. Improvements to the Illinois Central, which have already been referred to in the Manufacturers' Record, include one contract alone, which represents an outlay of \$1,200,000, in making a reduction of grade on 130 miles of line. The Louisville & Nashville improvements include a bridge over the Tennessee river at a cost of \$145,000, the rebuilding of twelve tunnels and the replacing of over a mile of trestle work with earth embankments and masonry culverts. A contract involving \$200,000 is now being carried out in reducing the grade of the road between Bowling Green and Louisville, Ky. The Nashville, Chattanooga & St. Louis has reballasted about 100 miles of line and rebuilt 20,000 feet of trestle work, in addition to filling several long cuts with earth or masonry.

Baltimore & Ohio Rolling Stock.

The Baltimore & Ohio Railroad is experimenting with an 80,000-pound coal car between Cumberland and Baltimore, where the heavy movement of coal will justify an increase in the capacity of the cars. The present cars now in use have 50 per cent. greater capacity than those used three years ago, but with the changes in the line and the relaying of the track with 85-pound rails and the erection of modern steel bridges, the receivers believe it possible to increase the car capacity from 60,000 to 80,000 pounds. Plans are also being made at the Mount Clare locomotive shops for locomotives to weigh between 225,000 and 230,000 pounds, the cylinders to be 23x30 inches and the rest of the engine in proportion. If locomotives of this type are built they will be used on the heavy grades between Cumberland and Grafton.

In Good Condition.

According to the New York Stockholder, an investigation into the affairs of the St. Louis Southwestern Railway Co. was recently made by persons who had been attracted by the low funded debt of that company. The result of this examination was extremely satisfactory, as it developed that the high rate of operating expenses in the last fifteen or

twenty years had been due to liberal expenditures to place the road in proper physical condition. It is claimed that the St. Louis Southwestern, in this respect, is equal to any road in the Southwest, and is superior to many of them. On account of the physical improvement, much larger trainloads can now be carried, resulting in lower cost per ton per mile. The fixed charges are only \$650 per mile.

Central of Georgia Officers.

The directors of the Central of Georgia Railway Co. have re-elected the present officers, which are as follows: President, H. M. Comer; vice-president, John M. Egan; secretary, Edward Workman; general counsel, Lawton & Cunningham; auditor, H. A. Dunn; treasurer, T. M. Cunningham. The directors, in taking this action, have recognized the ability of the present administration. Messrs. Comer and Egan have carried out a policy which has resulted in the general improvement of the Central, both from a physical and financial standpoint, and the confidence of the board of directors in them is shown by their re-election.

Important Georgia Line.

The Georgia Pine Railroad has been completed between Bainbridge and Arlington, Ga., a distance of forty miles. The completion of the road was celebrated with appropriate ceremonies at Arlington. This line, which has already been referred to in the Manufacturers' Record, it is intended, will be extended as far as Tallahassee, Fla., which will make its total length nearly 175 miles. This is one of the most important lines in Southern Georgia and Northern Florida. A number of Savannah capitalists, including J. B. Williams, are interested in the company.

Another Georgia Road.

A correspondent of the Manufacturers' Record at Eastman, Ga., writes that the business men of that town have determined to increase its railroad facilities by building a line to a connection with the Georgia & Alabama Railroad, near Abbeville. The road will be eighteen miles long, and the company is entitled the Eastman & Ocmulgee River Railroad Co. Among those interested in it are H. M. Edwards, J. C. Williams and J. B. Caldwell.

West Virginia Short Line.

In a letter to the Manufacturers' Record P. H. Bennett, of Clarksburg, W. Va., contractor for the West Virginia Short Line Railroad, states that it is expected to begin work on this road in the near future. It will be sixty miles long, and traverse a large oil-producing territory, being a competitor of the Baltimore & Ohio. Surveyors are now completing estimates on the line. It will extend between Clarksburg and New Martinsville.

Inspected Port Arthur Route.

A dispatch from Kansas City, Mo., states that a special train carrying a number of directors of the Baltimore & Ohio Southwestern route and some of the Kansas City, Pittsburg & Gulf officials left Kansas City for a tour of inspection of the Port Arthur lines south from this city. There is a rumor of some deal between President Stilwell, of the Pittsburg & Gulf, and the Baltimore & Ohio lines.

Railroad Notes.

At the annual meeting of the Valley Railway of Virginia, which is a branch of the Baltimore & Ohio, Oscar G. Murray, vice-president of the B. & O., was

elected a director, succeeding E. R. Bacon.

Charles Fay has been appointed general freight agent of the Southern Pacific Railway, with offices at New Orleans.

The Mobile & Ohio Railroad Co. announces the selection of J. T. Poe, freight traffic manager, with headquarters at Mobile, Ala.

The announcement is made that Howard G. Lyons has resigned his position as general freight agent of the Southern Pacific Railroad.

According to a dispatch from St. Paul, Minn., it is stated that the Illinois Central Company may secure important lines in the Northwest, including the Minneapolis & St. Louis Railway.

In a letter to the Manufacturers' Record J. W. Branning, president of the Wellington & Powellsville Railroad Co., denies the report that this company may construct a line from Windsor to Lewiston, N. C.

The Consolidated Railway Co. of Baltimore is receiving 150 new cars, ordered to replace rolling stock which was burned several months ago. The City Passenger Railway Co. of Baltimore has also ordered twenty cars, to be used on its lines in the city.

It is announced that the Ensign Manufacturing Co., of Huntington, W. Va., has received an order from the Cape Fear & Yadkin Valley Railroad for fifty flat cars and fifty box cars; also an order for 100 box cars of thirty tons capacity for the Norfolk & Southern road.

In a letter to the Manufacturers' Record Mr. Frank S. Gannon, general manager of the Southern Railway Co., states that there is no truth in the report that the Southern is interested in a survey for a railroad from Strasburg to the West Virginia coal fields.

A dispatch from Chattanooga, Tenn., states that there is a possibility that the Southern Railway Co. may arrange a shorter route into that city by constructing a tunnel; also an additional bridge across the Tennessee river. It is understood that calculations have been made of the cost and other details.

At the annual meeting of the Suffolk & Carolina Railroad Co., which operates a line from Suffolk, Va., to a point near Edenton, N. C., the following officers were elected: William H. Bosley, president; C. H. Tilghman, vice-president; W. B. Oliver, treasurer; G. L. Barton, general manager; H. P. Brooks, superintendent; C. L. Hutchins, auditor.

A dispatch from Wilmington, Del., states that the Baltimore & Ohio Company has secured control of the Wilmington & Northern Railroad, extending from Wilmington to Reading, Pa., a distance of about seventy miles. The road reaches the center of the anthracite coal territory, and would be of much value to the Baltimore & Ohio for this reason. The report is denied by Receiver Cowen.

At the annual meeting of the companies interested in the West Virginia Central & Pittsburg Railroad system the present board of directors was re-elected. The reports submitted show that improvements made during the year included a roundhouse, containing fourteen stalls, and a small machine shop. Several miles of track have been laid in the yards for the shifting and storage of cars.

Messrs. McIlwain & Deaton, of Gibson, N. C., are erecting a brick building, 75x100 feet in size, to replace their burned knitting mill building that was destroyed recently. The firm has not yet definitely decided whether it will put in knitting machinery or other equipment.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

EQUIPPING FOR WINTER.

Carolina Cotton Mills Preparing for Night Work.

[Special Cor. Manufacturers' Record.]

Charlotte, N. C., October 18.

There is continued activity in the cotton-milling circles of this section of the South, one of the most significant indications of a prospective busy winter season being the unusually large orders for electric-light equipments. Nearly every factory in North and South Carolina not already fully equipped for night work is putting in lighting plants. The supply houses of Charlotte are doing a large business in this line just now. The factory that is not equipped with the latest and best machinery and a light plant so as to run continuously from Monday morning to Saturday night is not considered in the push at all. Such a thing as running on short time is not known now. The Southern cotton mills are as busy as they can be, the necessity for night work being all the evidence that should be wanted to sustain that fact.

The Southern manufacturers are taking quite a turn now for knitting, and knitting machinery of various kinds is being contracted for. The Winston Knitting Mills have begun operations, and are turning out eighty dozen pairs of undershirts per day. The Cannon Manufacturing Co., of Concord, is putting in an instalment of knitting machinery. The success of Mr. R. M. Oates' hosiery factory at Charlotte has been such that he has decided to spin his own yarns, and is putting in 2000 spindles.

Mr. Stenhouse, an Austrian, two months in this country, has located in Charlotte, and is now equipping a sizing factory. He has leased steam facilities for the present, but later on expects to build and equip a plant of his own.

A new brick building, covering an entire block near the Southern freight depot, is now ready for the timbers. It is the warehouse of the Merchants & Farmers' Bonded Warehouse Co., the first to be built in this section, and is an evidence that the bonded-warehouse system is a success and is henceforth to be an institution in the cotton-growing section.

There were six mill men from neighboring towns and eight manufacturers from Rhode Island and Massachusetts at the Buford Hotel one day this week. Charlotte seems to be the objective point of all the Northern and New England manufacturers coming South. They find a most congenial atmosphere in the Manufacturers' Club, an institution which has done much to spread Charlotte's fame abroad.

The Textile Supply Co., one of the new corporations, is going into new quarters on College street. J. L. Sexton & Co., another new firm, is installed in a building on Tryon street, and, although their quarters there are only temporary, they are elegantly fitted up. It is noticed by all visitors that the Charlotte supply and machine men have the most finely-appointed business offices in the city.

Mr. G. W. Featherston, of Cedartown, Ga., contemplates constructing a plant

for the production of underwear for both sexes. Correspondence regarding the machinery needed is now being received.

Cotton-Baling Reform.

[Texas Trade Review.]

For all the years there has been but one sort of cotton baling we have known, and that is the square-shaped, the covering being of jute or similar material, and all fastened by ropes in earlier days, but for the past thirty years by iron ties. For the compactness desirable for foreign shipping purposes the pressing done at the gin was supplemented by the condensed process under the great compress, at first limited to the seaboard cities, but of recent years extensively at work throughout the interior cities and towns.

But baling reform has been a subject which for the past few years has been agitating the public cotton mind. And the more the subject is given consideration by parties interested the more it grows in interest. At present the cylindrical bale is pressing its claims for recognition as possessing clear and positive advantages over the 24x54 square bale. In this shape the raw cotton fed into press comes out a thoroughly cleaned and evenly rolled lap of a standard weight, of a given number of pounds to the bale, and of even, regular width.

There has been much objection to the change from this greatly lighter round bale by shippers and those extensively interested in millions of dollars now invested in existing plans.

Again, it is proposed to reduce the square bale to one-half its present size and weight, the shape being retained.

The Baltimore Manufacturers' Record, one of the ablest of all the industrial journals, and one ever alert for the best welfare and the progress of all Southern interests, recently printed approvingly some statements made by William C. Lovering, a leading cotton-mill owner of New England, and the Planters' Journal, of Memphis, aent this subject.

After discoursing on the reckless methods of our cotton planters under earlier conditions, when the staple was really a paying crop, when high prices and large profits was the rule, the Planters' Journal remarks:

"It is not an extravagant assertion, nor one hard to appreciate at present, to declare that the grower's thoughtlessness has dispossessed him of millions annually that might just as reasonably have been dumped into the sea. Even at the present stage of the question this yearly proceeding becomes a galling monument to his stupidity, which is realized by none more completely than himself."

"At this point it is not inappropriate to take note of the effort now being made to prejudice the public against the cylindrical form of bale by selfish interests shouting corporation, trust, combination and monopoly. All three bales now attracting public attention are backed by organized interests not for their individual healths or that of the dear old producer, and it would require the services of a Spanish diplomat to split the hairs.

"The planter wants to get hold of the best form of bale, regardless of dragons, cormorants and hydra-headed monstrosities, and trial has already vindicated the fact that the round bale is not only to be a permanent institution, but is to be henceforth a vital factor in improved baling. The now general concentration of the 24x54 square-bale interests is an eloquent testimonial to this effect. About the most desirable feature of the situation at present is that competition has reached the fighting stage. The more kinds of new bales the merrier it is for the interests of the planter, who in due

course of time is going to have the best."

The progress that these competitive bales will make toward general favor and final triumph will be watched with keen interest by farmers and merchants, the ginners and the manufacturers. In any event, this baling-reform idea is in the atmosphere, and is destined to be of unspeakable benefits to all the cotton interests.

Asking Southern Aid.

Referring to the recent meeting of New England Cotton Manufacturers' Association, the Boston Journal of Commerce expresses regret that the organization apparently offers little attraction for the managers of Southern cotton mills. It concedes that the Southern mill manager is, as a rule, a very busy man, but it notes the large increase in the number of spindles in the South during the past two years, and says that the attendance from the South at the meeting of the New England Association is not what it was two years ago, notwithstanding the fact that a great many names of Southern cotton-mill men are enrolled on the membership of the association. It adds:

"Some plan should be formulated that would create more Southern interest in the association. The managers of our Southern cotton mills are a very smart set of business men. There are no keener men engaged in any one line of business either in the North or South than those that are at the present time running Southern cotton mills, and their success in the business shows it, and the New England Manufacturers' Association is in need of their support and interest. If the name of the association seems too sectional for their endorsement, then change it to the American or the National Manufacturers' Association."

Here is an interesting, if unconscious, commentary upon the movement which has been discussed widely for two or more years. The need of the support of the association by Southern mill men may be conceded, but is it equally true that the Southern mill men need the support of the association? They have an association of their own, the Southern Cotton Spinners' Association. It may be, perhaps, observed with propriety in passing that the attitude of New England mill men as exemplified in interviews, editorials and in attempts to secure national interference with the business of the Southern mill men, has not been during the past two years of a character calculated to attract the latter to their assistance, and this may be true whether a sectional name or not were used by the New England organization. It may be well also to suggest that perhaps a union of the New England Association with the Southern Cotton Spinners' Association may be timely in view of the trend of cotton manufacturing toward the South, and that ultimately the Southern mill men to the manner born and those who have moved to the South, attracted by its natural advantages, may form the nucleus for the International Cotton Manufacturers' Association.

For Cotton Handlers.

Messrs. Latham, Alexander & Co., bankers, of New York, have published their twenty-fifth edition of their valuable annual publication "Cotton Movement and Fluctuations." Of especial interest at this time is an article on the cotton industry of Japan, written expressly for this edition by Mr. Thomas Ellison, the distinguished statistician of Liverpool, England. There is also a description, with illustrations, of the new Lowry cotton compress, which is now attracting so much attention among

planters and the cotton trade. In addition to the usual tables of receipts, stocks, exports, consumption, acreage, total visible supply, there is much interesting original matter that cannot be found elsewhere in such concise form. The book contains also an annual review of the cotton trade for the past season by Messrs. Latham, Alexander & Co. This standard reference book will be welcomed by the customers and other friends of the firm.

To Reduce Wages.

It is announced that certain mills in the Augusta (Ga.) district have decided upon a reduction of about 10 per cent. in wages, to go into effect some time in November. At the same time it is announced that house rents for operatives will be reduced by at least one interest. President Estes, of the Southern Cotton Manufacturers' Association, in discussing the matter, said:

"We would far prefer to increase pay, if such were possible, than reduce it. A new scale will be prepared and will be furnished to the foremen two weeks before it goes into effect. The scale will still be more than 6 per cent. above other Southern mills outside the Augusta district."

Ordered 2500 Additional Spindles.

The Edgefield Manufacturing Co., of Edgefield, S. C., has placed the order for the additional spindles which were recently decided upon. The spindles will number 2500, thus giving the company a total equipment of 5000 spindles for the production of yarns and four-yard sheetings. The Mason Machine Works, of Taunton, Mass., obtained the contract to furnish the machinery.

To Expend \$10,000 for New Machinery

The directors of the Eagle & Phoenix Mills, of Columbus, Ga., held a meeting on October 2 to consider certain improvements proposed. The purchase of \$10,000 worth of new machinery was authorized by the directors, and a representative was instructed to make a trip to the New England machine shops to contract for the apparatus required.

Will Spin Its Own Yarns.

Mr. R. M. Oates, treasurer of the Gold Crown Hosiery Mills, at Charlotte, N. C., has decided to spin his own yarns. An equipment of 2000 spindles will be installed for this purpose, and the machinery has been purchased and is now being placed in position. The Gold Crown Mill operates 112 knitting machines.

Textile Notes.

The Cannon Manufacturing Co., of Concord, N. C., is installing some knitting machinery in its cotton mill.

Mr. Stenhouse, of Austria, has located in Charlotte, N. C., and is equipping a sizing factory. Steam-power and space has been leased, but later on an entire new factory will be erected.

The Marietta Knitting Co., of Marietta, Ga., has increased its capital stock from \$22,000 to \$25,000, and will expend the additional funds in the purchase of additional machinery this winter.

Mr. J. H. White and associates, of Merry Hill, N. C., have in view the establishment of a knitting mill, and estimates on a 20 to 30-machine plant are invited. The product is to be hosiery.

Messrs. F. Hargrave and Jas. A. Leak, of Wadesboro, N. C., will establish a pants factory and underwear mill. The machinery has been ordered, and is now being installed. About twenty operatives will be employed at the start.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

COTTONSEED MILLS.

Conditions at Present Affecting the Oil Business.

In response to a letter of inquiry from the Manufacturers' Record, several manufacturers of cottonseed oil have written about the condition of business in that line as follows:

E. M. Durham, secretary and treasurer Refuge Oil Mill Co., Vicksburg, Miss.: "I regret that I cannot give a very favorable report on the conditions of the cotton-oil business at present. Prices for products are probably lower than they have ever been in the history of the business; while, as far as this section is concerned, the crop of seed not only promises to be short, but seems to be in very bad condition, as little or none of the seed coming to market will make prime oil. This applies to the entire valley, from Memphis to Natchez; south of there, I understand, the conditions are a little better. To add to the misfortunes of the mills, there has been a lack of harmony so far, so that the prices that have been paid for seed are altogether out of proportion to the markets for products, and the chances are that, unless the mills become more conservative, they will suffer a severe loss from the operations of this season."

E. S. Proudfit, secretary and treasurer De Soto Oil Co., Memphis, Tenn.: "The crop of seed up to this time has not been satisfactory, on account of the excessive moisture, on account of the wet fall and summer. With the usual amount of sunshine the balance of this month no doubt the seed will improve, and hence the quality of the product. It has been almost impossible to make prime goods. The crush this year, so far as Memphis is concerned, will be a little less than the past year, so we think, and that of the Mississippi valley likewise. Arkansas will be fully as much, with the chances for a larger crush. There is a good demand for all our products, including oil, cake and meal, linters, etc. The prices, however, for oil are not satisfactory, ruling at fourteen and one-half cents here. This is owing to the large stock of old oil carried over the past year, coupled with the prospect for a large cotton crop. This is about all we can say on the question."

Hazlehurst Oil Mill & Fertilizer Co., Hazlehurst, Miss.: "The outlook in our line of business is rather discouraging. The cotton crop has been damaged to a great extent in this section by excessive rains. The seed supply, consequently, will not only be cut off to a considerable extent, but the quality of the seed is very poor. The price of cotton oil is so low that we cannot pay such prices for seed as we have been paying, and our hill farmers, unlike those of the river, or bottom country, will not sell their seed for less than ten cents per bushel (\$6 per ton), because they can find use for them as fertilizer, applying them directly to their land. Unless the price of cotton oil shall materially improve, enabling us to pay a price that will justify the farmer in hauling his seed to market, we look for a very small movement of seed as compared with last year."

Arkansas Valley Cotton Oil Co., Dardanelle, Ark.: "The outlook for business for the cotton-oil mills is anything but promising. The supply of seed is short of last season nearly one-half. The qual-

ity, owing to continued rains, is very inferior. We are paying \$5 per ton."

John A. Barlow, treasurer and manager Givanovich Oil Co., Ltd., Natchez, La.: "There is nothing encouraging in the cotton-oil business; but little demand for crude, and that at a losing figure. Seed are selling at \$6 f. o. b. cars at mill, with plenty of them in sight. Were it not for meal bringing a good price the mills would have to close down."

L. W. Haskell, manager The Southern Cotton Oil Co., Savannah, Ga.: "The outlook for the cotton-oil business in this section of the country is not good. The price of oil is low, and the quality of seed is poor."

Hunt County Oil Co., Wolfe City, Texas: "We think the outlook for business is good. Prices are very low, it is true, but the oil mills seem to have at least learned wisdom, and there is much less profit-destroying rivalry in purchase of seed than in former years. Having sold all products up to January, we are not looking after the market, and hence are not in a position to express an opinion beyond this, that we think oil must advance before long. We have put in a large Corliss engine and added 50 per cent. to our press capacity since we closed down in May. Quality of product, both oil and meal, very fine. Hulls a little hard to sell, as a rule; feeders afraid of the prevailing high prices for cattle. We are sold up on bulls."

In view of these letters, an editorial suggestion in the Augusta Chronicle is quite timely. It says: "The South can save many hundreds of thousands of dollars annually by using cottonseed oil for cooking purposes instead of lard. There has been some objection hitherto on account of rancidity, but this need not be the case. The Augusta Oil Mills furnish a fresh, sweet and pure article, and only habit and prejudice keep people from its use in the kitchen. A prominent gentleman of this city asked his wife to try it instead of lard, but she refused to do so. He then told the cook to use it exclusively, and she did so. The lady of the house never knew that oil instead of lard was being used until so informed by her husband, who showed her all the lard unused by the cook. Certainly a pure vegetable oil is better than grease made from all kinds of hogs, many of which were possibly diseased. Some day, perhaps not very remote, the mineral oil supply may be exhausted or seriously diminished. Then cottonseed oil will take its place in many ways. The South has numerous elements of wealth, but she does not properly utilize all of them. When the South learns to live more independently she will become the richest section of the Union."

The Market for Cottonseed Products.

New York, N. Y., October 18.

The cotton-oil market is dull but firm, while there is no apparent disposition on the part of purchasers to secure substantial supplies at current prices, in the hope that something may turn up to cause an easier market condition, all of which goes to show that rock-bottom prices have been reached, at least for the present, and that the tendency of prices is upward. A strong interest is taken in the cotton-oil market by exporters for prompt and for delivery over the year, but the recent and expected further advance in ocean freights has checked trading, inasmuch as buyer and seller alike refuse to meet the freight-rate advance referred to. Ocean freights have advanced to the extent of three shillings, due to wheat monopolizing the room, and the scarcity has proved a setback to cotton-oil shipments. The lard market has

revived, and prices have gone up since our last, Chicago lard, January delivery, being quoted at 5.02½ cents. The comparative scarcity of tallow tends to keep the market up, and prices are well maintained, New York city make being quoted at 3½ cents. The prevalence of yellow fever in the South has tended to check business, especially in the Mississippi valley. Refined oil at this market is steady to firm, as supplies of fine grade are not as yet very plentiful. Reports arriving at this market from the various parts of the South are to the effect that there is very little prime made. Choice grade required for making white is very scarce, and commands full figures, if not a premium, due mainly to prime oil being in such light supply. With regard to the sale of crude from the mills, the Western trade is reported to be making heavy purchases, and which are likely to be continued during this month. Refiners in the East are not purchasing to any important extent, as the difference between the prices of crude and refined is not yet large enough to warrant activity. Eastern refiners are bidding 13½ cents for car lots of crude, or ½c. more than offers of Western refineries. At the former price a number of car lots were purchased today for compound-lard-making, trade possibilities in Cuba and Porto Rico being the prime incentive to buy. Crude in barrels is still very scarce at this market. Seed supplies at the mills are not as low in price as would warrant crushers in freely disposing of current make of oil at the prevailing quotations. The following are closing prices: Crude, 18 cents; crude, loose f. o. b. mills, 13 to 13½ cents; summer yellow, prime, 22 to 23 cents; summer, off grades, 20½ to 21 cents; yellow, butter grades, 26 to 27 cents; white, 26 to 27 cents; winter yellow, 27 to 28 cents, and salad oil, 29 cents. Liverpool refined oil is quoted steady at 15s. 6d. At the close today at this market oil is held stronger. Off yellow is offering, November-December, at 21 cents. It is reported that 8500 barrels of oil were sold within the past few days at New Orleans at 19½ to 19¾ cents.

Cake and Meal.—The market is stronger and more active than a week ago. Meal for domestic use is in better demand. The foreign enquiry is of a nature that would indicate considerable activity during the next two months. Cake is quoted at this market at \$21.50 to \$22 per ton, and meal at the mills at \$20 to \$21 per long ton, and \$21 to \$22 here.

Cottonseed-Oil Notes.

The Saluda Oil Mill, of Piedmont, S. C., was granted a charter last week, with capital stock of \$10,000.

The representative of the Consumers' Cottonseed Oil Co. at Little Rock, Ark., has been authorized to pay \$8 per ton for all the seed he can secure at that price.

The Chester Cottonseed Oil Mill, at Chester, S. C., will commence operations about the 1st of November. The company is expected to handle all the seed received at Chester.

A charter was granted last week to the R. L. Heflin Co., of Galveston, Texas, with a capital stock of \$100,000. The company purposed dealing in cottonseed and all the products thereof, including its oils. The incorporators are R. L. Heflin, J. Lohit and William F. Flash.

The market for cottonseed products in Texas is quiet, and values show but little change, being about steady at the recent decline. The Houston Post quotes values as follows: Prime crude oil, 12 to 12½ cents; prime refined summer yellow, 15 to 15½ cents; cottonseed meal, \$12.50 to \$13; cottonseed cake, \$12 to \$12.50, and

linters—A, 1½ to 2 cents, all f. o. b. at mill at interior points.

The South Carolina Cotton Oil Mill Co., at Greenville, S. C., is accomplishing good results from its new "Munger system" of cotton ginning. The cotton brought in from the field is ginned at once and baled, and both seed and cotton are bought on the same premises, without the necessity of a second trip by the farmer.

The situation in cottonseed products is unchanged, and receipts of Texas product, as well as that from the valley, are light. The market is generally easy, and the offering of new crush is light. Receivers' prices are quoted as follows: Cottonseed, \$5 per ton of 2000 pounds delivered on river bank, from New Orleans to Memphis, for good sound seed; cottonseed meal jobbing per carload at depot, \$16.50 per short ton of 2000 pounds; for export per long ton of 2240 pounds f. o. b., \$18 to \$18.50, new crop; oilcake for export, \$18 to \$18.50, new crop, per long ton f. o. b.; crude cottonseed oil at wholesale or for shipment, strictly prime, new-crop oil, crude, 13 to 14 cents per gallon loose f. o. b. tanks here; in barrels, 15 to 16 cents; cottonseed hulls delivered per 100 pounds, according to location of mill, 7½ to 10 cents; linters, according to style and staple—A, 2½ cents; B, 2½ cents; C, 2½ cents; ashes, none; refined cottonseed oil, prime in barrels per gallon at wholesale or for shipment, 21 cents for export; oh refined cottonseed oil, 19½ to 20 cents for steamer.

The stockholders of the Enterprise Cotton Mills, of Orangeburg, S. C., held a meeting recently and decided to issue \$75,000 worth of bonds. These bonds having been disposed of, the proceeds will be used in the purchase of the necessary machinery for the mill to go into operation. Mr. Samuel Dibble (president) and Arthur Whittam (secretary) will go North to complete the financial arrangements referred to and to contract for the machinery. The equipment of this mill as projected is 11,200 spindles and 250 looms.

In Municipal Affairs for September is a symposium upon women's work in city problems. Among the articles are: "Women's Health Protective Association," Mary E. Trautman; "New York Women in Philanthropic Work," May W. Mount; "Women in New York Settlements," Mary M. Kingsbury; "The New York City History Club," Anna Ware Winsor; "Women's Municipal League," Josephine Shaw Lowell; "The Civic Club, Philadelphia," Edith Wetherill; "Some Ways of Benefiting a City," Alice N. Lincoln; "Women's Work in Boston Settlements," Helena S. Dudley; "The Boston Schools: A Sanitary Investigation," Alice Upton Pearmain; "Women's Work for Chicago," Jane Addams; "Women's Work for the Public in New Orleans," May W. Mount; "What Women Have Done in Washington," Katharine Hosmer; "Women's Work in Indianapolis," Hester M. McClung; "Women's Work in Denver," Martha A. B. Conine.

Mrs. Ballington Booth, of "The American Volunteers," is writing out her experiences in American prisons and in the slums of New York for The Ladies' Home Journal. Mrs. Booth has perhaps come closer to the lives and confidences of the men and women in prisons, and to know the poor better, than any woman living. She will not only tell what she has seen, but she will point out what her experience has shown her to be the most effective way in dealing with the people of the prisons and the slums.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record,

Baltimore, Md., October 20.

The demand for lumber in the local market for the past week has shown no expansion, and the general tone is quiet in many departments. Receipts of North Carolina pine have been moderate, and stocks on hand are ample for the present moderate demand existing. Boxmakers are still buying freely, and values for air-dried North Carolina pine are a shade firmer. Planing mills and yardmen are only purchasing as the occasion requires, and the demand from these sources shows little improvement. Kiln-dried stock is selling freely to out-of-town buyers, and there has also been some good inquiry from the foreign market for prompt delivery. In white pine there is some business doing, and prices are firm, with stocks not excessive. The hardwood market continues fairly active in a local way, and there is a good inquiry from furniture manufacturers. The demand from this source is improving, under an active demand for the manufactured product. Out-of-town buyers are purchasing more freely, and values throughout the list are firm. The foreign trade is improving, and the demand for large lots from the United Kingdom and Continent has been quite good during the present month. Ocean freights are higher, and values on the other side are not improving, while the margin of profit for the shipper is at the moment generally narrow.

Charleston.

[From our own Correspondent.]

Charleston, S. C., October 17.

There continues to be a better market for lumber as the season advances, and mills, both here and at Georgetown, are busy on orders for prompt and near future delivery. The Northern and Eastern inquiry for desirable grades of lumber continues to improve, and prices are generally very steady, closing on Saturday last as follows: Merchantable lumber, \$14 to \$16 for city-sawed, \$12 to \$14 for railroad; square and sound, \$9 to \$13 for railroad, \$8 to \$11 for raft; dock timber, \$4.50 to \$6.50; shipping, \$8.50 to \$10.50. Stocks of shingles are about equal to a fair demand, and the market is steady at \$4 to \$7 per thousand. During the past week the following clearances were reported: Schooner Robert A. Snyder for New York with 350,000 feet of lumber, and schooner Percy & Lillie with 375,000 feet; New York steamers Cherokee with 48,900 feet, Seminole with 52,172 feet, Iroquois with 10,000 feet and Pawnee with 8700 feet. The steamer George W. Clyde cleared for Boston with 39,100 feet of lumber. The total shipments of lumber from this port since the 1st of September amount to 2,042,808 feet, against 4,083,200 feet last year. Lumber rates are firm, with rates to Fall River \$4.50, and charters reported during the week of a schooner from Charleston to Boston with lumber at \$4.75, and schooner Georgetta Lawrence from Charleston to New York with lumber at \$4.62½, option New Haven \$4.75.

Savannah.

[From our own Correspondent.]

Savannah, Ga., October 17.

The activity previously noted at this port continues uninterrupted, and the lumber market shows a good volume of business in nearly all branches. The de-

mand from Northern and Eastern sources has been very good during the week under review, and from local and nearby sources there is a great improvement. Mills at all points in this section of the State continue to have plenty of business, and the output is generally sold in advance, so that there is no excessive stock on hand. Prices for desirable lumber holds firm, and the market is quoted as follows: Minimum yard sizes, \$9.50; car-sills, \$10; difficult sizes, \$11 to \$12; ship stock, \$15 to \$16.50; sawn crossties, \$8.25; hewn crossties, 30 to 31 cents per tie. At the nearby ports of Darien and Brunswick business in lumber is also quite encouraging, all the mills having as much as they can do to supply the demand. At Darien shipments to Europe have been fair, but shippers are generally cautious in their movements, and are only shipping on actual orders. During the past week the clearances from Savannah were as follows: Schooner John H. Tingue for New Haven with 386,137 feet of pitch-pine lumber; schooner Isaac N. Kerlin for Baltimore with 316,588 feet; schooner Thomas A. Ward for Newport News with 608,722 feet; schooner Annie T. Bailey for Philadelphia with 301,919 feet, and schooner Lizzie B. Wiley for New York with 396,781 feet. New York steamers took out 386,920 feet of pitch-pine lumber, Boston steamers 17,000 feet and Baltimore steamers 279,320 feet, making a total of 2,279,586 feet. The real estate business here is improving, and the building demand for lumber is good. The demand for work on account of bringing the troops here and the beginning of the Hutchinson Island improvements will give considerable work to the laboring classes. It is said that there has been more building and building improvements in Savannah this year than for many years, and the outlook is promising for more during the winter and spring. The local demand for lumber and other building material is consequently greater, with prices steady. Lumber freights are firm, with a moderate offering of desirable tonnage. Rates from this and nearby ports of Georgia are quoted at \$4 to \$4.75 for a range including Baltimore and Portland, Me. Railroad ties, basis forty-four feet, to Baltimore 13½ cents, to Philadelphia 14½ cents and to New York 16½ cents. Among the charters reported in New York last week were the following: Schooner Joel F. Sheppard, 539 tons, from Brunswick to Elizabethport with ties at 14½ cents; schooner C. C. Sweeney, 596 tons, from Brunswick to Kingston, Jamaica, with lumber at \$5.50, U. S. gold; schooner W. L. Newton, 366 tons, from Brunswick to New York with lumber at \$4.75; schooner James Baird, same at \$5, and schooner Frank Vanderherchen from Savannah to Philadelphia with lumber at \$4.25, coal out \$1.10.

Mobile.

[From our own Correspondent.]

Mobile, Ala., October 17.

Along the wharves and docks of this port during the week under review there has been presented an unusual scene of activity among the port shipping. The upper docks of the Mobile & Ohio Railroad were crowded, filled with barks, schooners and steamers. The steamers Montgomery and Dalmally were taking on cargoes for the United Kingdom, and a number of vessels loading lumber for South America, while at the mills of One and Three Mile creeks a number of ships and steamers were loading lumber and timber for European and other ports. The demand for sawn timber is now quite active, and prices firm at 10½ cents per cubic foot, 40-foot basis. Cypress logs are firm at 6 to 9 cents per cubic

foot, according to the average. There is quite a fair demand for saw logs at \$4 to \$7 per 1000 feet. Hewn timber, when placed upon the market, will bring 12 cents per cubic foot, basis of 100 cubic feet, average B1 good. Contracts are made at 12 cents. Hewn poplar is in limited demand at 10 cents per cubic foot, but there is no demand for hewn oak. During the week the following clearances were reported: Bark Lorenzo for Fleetwood, England, with 20,205 cubic feet of hewn timber, 36,190 cubic feet of sawn timber and 143,818 feet of lumber; steamer Twickenham for Amsterdam with 130,332 cubic feet of sawn timber and 22,804 feet of lumber; steamer Roddam for Dordrecht, Holland, with 121,716 cubic feet of sawn timber and 21,538 feet of lumber; bark Lefargey for Montevideo with 697,551 feet of lumber; steamer Hellos for Progresso, Mexico, with 887,750 feet; bark Belvidere for Rosario with 520,971 feet; schooner Kenby for Cardenas, Cuba, with 260,000 feet; schooner Bentley for Port Limon with 244,000 feet, and other cargoes for Central American ports aggregating 100,000 feet. The demand for lumber is now active, and mills are very busy on orders. The trade with Cuba and other West India ports promises to be of considerable volume this winter, and the inquiry from South American ports is better. Among the charters reported this week are the following: Schooner E. A. Stimpson, 268 tons, from Mobile to La Guayra with lumber at or about \$7 and port charges, and bark Vidette from Apalachicola to New York with lumber at \$5.50, option Boston \$4.75.

St. Louis.

[From our own Correspondent.]

St. Louis, Mo., October 17.

There is a fairly active market in most departments of the lumber trade, and there has been a good business reported by local operators during the week, orders having been more numerous. Receipts continue light, and it is said that the general movement in lumber is less than at the same period last year. Rainy weather and yellow fever has seriously restricted trade, as well as car shortage, which, however, is not to say serious. The movement in yellow pine has also been lighter than usual—mills in the South are only running on part time—which, together with the scarcity in cars at some Southern points, is quite a drawback to trade. Prices continue steady and unchanged. There has been a light river movement of stock during the past six weeks, but the indications are that it will improve during November. Receipts of oak, ash and other hardwoods from the Tennessee river have been more liberal, and several tugs of cypress and cottonwood are reported on their way to this port. There has been a fair demand for cypress recently, and prices are firmer. The wet weather is also interfering with the movement in hardwoods, and receipts continue light. There has been a good demand from the North, and stocks have been considerably reduced in some cases. The local demand is mostly from wagon-makers, and also from agricultural-implement manufacturers. Thick white oak three-inch is scarce and in good demand, and red oak and plain white of one and two-inch is very salable. Receipts of poplar continue light, and the demand, which has fallen off of late, is again improving. All hardwoods are in light supply, and are very desirable stocks to carry, there being a good general demand for all grades.

Lumber Notes.

The Ezell Stave Co., of Pine Bluff, Ark., is in receipt of an order from the

Chickasaw Cooperage Co., of Memphis, Tenn., for 500,000 kiln-dried white-oak staves to be used in making oil barrels.

Mr. C. Julian Bartlett, Chatawa, Miss., intends to establish a factory for making spools from beech, sassafras, gum, iron, dog and poplar woods. Correspondence regarding the machinery necessary is now in progress.

The Briar Creek Lumber Co., of Davy, W. Va., was organized last week for the purpose of operating saw mills, planing mills, manufacturing lumber and shipping the same. The capital subscribed is \$5000.

A charter was granted last week to the Donaldson Furniture Co., of Roanoke, Va. The new company has a capital of \$2500. William D. Donaldson is president, and W. M. Donaldson, secretary and treasurer.

The Summit Lumber Co.'s large plant at Junction City, Ark., was destroyed by fire on the 13th inst. A lot of 200,000 feet of lumber and dry-kilns were also consumed. The loss is estimated at \$50,000; partly covered by insurance.

The second shipment of lumber from the Swaggerty & Eubanks Mills, in Sevier county, Tennessee, will be made in a few days. This shipment covers about 75,000 feet of lumber, and goes to Baltimore. The first shipment of 50,000 feet was made to New Haven. The lumber is brought to Knoxville on barges and is reshipped on railroad.

It is stated that the organization of the Winston Furniture Co., of Winston, N. C., is now practically assured. The capital stock is now being solicited. The officers of the company will be: President, G. L. Miller; vice-president, C. W. Prentiss; secretary and treasurer, Walter A. Shore. Mr. Prentiss is a practical manufacturer from Williamsport, Pa.

The following are the shipments of lumber from mills at Orange, Texas, during the month of September: Bancroft Lumber Co., 1,206,305 feet; Orange Lumber Co., 2,453,076 feet; Wingate Lumber Co., 2,627,452 feet; Lutcher & Moore Lumber Co., 3,379,000 feet; Alexander Gilmer, 2,255,121 feet, making a total for the month of 11,920,954 feet.

Messrs. J. O. Thomas and D. A. Johnson, of Charlotte, N. C., have erected a factory and are now placing machinery for the purpose of converting their valuable hardwood timber into shape for the market. They will make a specialty of the manufacture of picker sticks and parquet strips. They also operate a saw mill, and are receiving a number of orders for hardwood lumber.

A charter was granted last week to the John Alexander Lumber Co., of Grafton, W. Va., for the purpose of doing a general planing-mill business. The capital subscribed is \$600, with the privilege of increasing the same to \$75,000. The principal stockholders are S. A. Montreville, E. A. Sweeny and John Alexander, of Pittsburgh, Pa.; Dr. J. R. Garman, of Cumberland, and John B. McCoy, of Grafton, W. Va.

It is stated that the Tilghman Lumber Co., whose representative visited Georgetown, S. C., recently to locate a mill site, as previously reported in the Manufacturers' Record, will erect about one mile from that city a double band saw mill. The mill will have a capacity of 75,000 to 100,000 feet of lumber per day, with an extensive system of dry-kilns and everything equipped with the very latest improved machinery.

The steamship Craftsman cleared last week from New Orleans for Liverpool with 10,000 pieces of oak lumber and 10,000 staves, with other cargo. A part

of cargo of steamship Ichmarie for Hamburg consisted of 50,000 staves, 10,750 pieces of oak lumber planks, 146 cedar logs and twenty walnut logs. The steamer Glengoil cleared for Hamburg with 32,112 oak planks and 1277 pieces of cottonwood planks.

Capt. J. W. Byrnes, manager of the International Creosoting & Contracting Co., of Beaumont, Texas, has received an inquiry for 200,000 pine crossties, which are to be creosoted and delivered at Kansas City beginning June, 1899. The same company has booked an order from the Lutcher & Moore Lumber Co., of Orange, to creosote 16,000 crossties for Mexico, and an order for 3000 from the Denver & Rio Grande Railroad.

The lumbermen of North and South Carolina and Georgia met on the 12th inst. in Fayetteville, N. C., for the purpose of organizing a lumbermen's protective association. Mr. V. F. Williams, of Red Springs, presided over the meeting. A number of representative lumbermen were present, and the result of their deliberations were highly satisfactory. The meeting excluded the press, and nothing was given out for publication of general interest.

The annual report of Commissioner Herman, of the General Land Office at Washington, D. C., estimates that over eleven billions of feet of public timber have been destroyed by fire in the past thirty-five years, representing in value many millions of dollars. The report also states that forest fires form the main subject for the attention of the land office, now threatening, as they do, not only the growing forests, but the forest lands, whose productions it retards indefinitely.

Among the shipments of wood products from Jacksonville, Fla., during the past week were the following: Schooner Alice J. Crabtree for Boston with 300,000 feet of yellow-pine lumber. The Clyde steamships Iroquois, George W. Clyde and Algonquin cleared with over a million feet of lumber, 5000 crossties and other cargo. The steamship Oneida cleared for Boston with 200,000 feet of lumber and other merchandise. A number of vessels are in port loading lumber, and others expected daily.

An amalgamation of twenty-four planing-mill plants, involving about \$15,000,000 capital, is now being planned among leading representatives of the trade in the Northwest. The mills the promoters of the combine propose to take into the deal are located in Illinois, Wisconsin, Michigan, Minnesota and Iowa. The stock company, when formed, will be capitalized at \$10,000,000, according to present intentions. The mills will be purchased outright, and stock, bonds and cash given to them.

The recent threats of a new outburst of Vesuvius give timeliness to an article by H. J. W. Dam on "The Mystery of Vesuvius," to appear in the November number of McClure's Magazine. Mr. Dam and the artist, C. K. Linson, made a recent exploration of the volcano for McClure's, and the article embraces much new information thus gained. It will be illustrated from special drawings made by Mr. Linson on the spot.

The article on "The Navy in the War," by Capt. F. E. Chadwick, of the flagship New York, in the November Scribner's, is the first complete and authoritative account of the many problems that had to be met in the formation of an adequate fleet, and the conclusions to be drawn from the victory before Santiago as to questions of type, construction, etc., of the navy of the future.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., October 20.

The local trade in phosphate rock continues quiet, with prices, as a rule, very steady, in sympathy with other fertilizer ingredients. There is some demand from manufacturers for future delivery, and brokers report considerable business during the past week. From points of production reports are in the main very favorable, and values are generally steady. The market for rock in South Carolina continues fairly active, with a good domestic demand. River miners are generally busy, and the companies engaged are getting out considerable rock. Foreign shipments continue light, and the demand from the United Kingdom and Continent is only moderate. Prices continue nominally steady at \$3 for crude rock at the mines, hot-air-dried \$3.25 f. o. b. vessel in Ashley river and \$3.45 f. o. b. city. Ground rock is quoted at \$5.50 f. o. b. vessel at city. Shipments of acid phosphate continue fair to several domestic ports. In Florida the movement among land-rock miners is fairly active, while those in the pebble district are not so busy. Shipments, however, continue of average volume from the ports, and prices steady, with a good domestic and foreign inquiry. Florida 60 per cent. pebble is quoted at 7 cents a unit in Baltimore. The Tennessee miners are all busy, and the demand, both domestic and foreign, is active. Prices, as a rule, are firm at \$1.65 f. o. b. mines at Mt. Pleasant, or 7½ cents a unit or \$5.25 a ton Baltimore. In the local market no new charters are reported, while the charter business for phosphate vessels has been very dull in New York during the past week.

Fertilizer Ingredients.

There was a limited inquiry for leading ammoniates, during the past week, and the market is very steady. Stocks of blood in the West are reported light under the recent heavy foreign export demand, while tankage is in fair supply. There is very little inquiry from Southern sources, buyers in that section being cautious in their movements, on account of the low price of cotton. Messrs. Thos. H. White & Co., in reviewing the market, say: "Since our last report the market for ammoniates has been steady. Sales of crushed tankage are reported at from \$1.67½ and 10 to \$1.70 and 10, basis Baltimore freight. On the six months' contracts that are now on the market from the first of November, the views of the buyers and sellers are very far apart, the sellers' ideas being somewhere in the neighborhood of \$1.50 and 10, Chicago. The low price of cottonseed meal in the South continues to play an important part in the demand for Western ammoniates in that section, it being impossible to sell in competition with cottonseed meal at from \$15.50 to \$16.50 delivered." Nitrate of soda is firmer, with a better inquiry, and fair sales in New York have been made for spot and future delivery at higher prices.

The following table represents the prices current at this date:

Sulphate of ammonia (gas).....	\$2 60 @
Nitrate of soda.....	1 75 @
Blood.....	1 85 @
Hoof meal.....	1 70 @
Azotine (beef).....	1 85 @
Azotine (pork).....	1 85 @
Tankage (concentrated).....	1 65 @
Tankage (9 and 20).....	1 70 and 10
Tankage (7 and 20).....	17 00 @ 17 50
Fish (dry).....	20 00 @
Fish (acid).....	12 00 @

Phosphate and Fertilizer Notes.

The steamer S. T. Morgan was launched last week at Wilmington, Del., from the

yards of the Harlan & Hollingsworth Co., having been built for the Virginia-Carolina Chemical Co. This vessel is to ply between Richmond and other ports, carrying chemicals and fertilizers manufactured by the company.

The following shipments of phosphate are reported from Charleston, S. C., for the week ending October 14: Schooner Harriet C. Kerlin with 700 tons of rock; schooner Oscar C. Schmidt with 764 tons of acid phosphate, and schooner Adele Thackera with 950 tons of rock, all for Baltimore. The schooner Warner Moore cleared for Richmond, Va., with 650 tons of rock. The total coastwise shipments since September 1 amount to 6153 tons, against 7321 tons for the corresponding period last year.

Commissioner Culver, of the State board of agriculture, in his annual report says: "One of the most important duties assigned to this department is the management and general supervision of the fertilizer trade of the State. Heretofore it has been the custom of this department to have the manufacturers submit samples of their fertilizers and have them analyzed by the State chemist, this being the guarantee upon which goods are sold within the State. During the past season we have abolished this custom, and have received samples of the various brands direct from dealers after coming into the State. During the present year we hope to get our fertilizer dealers familiar with the working of the plan, and we are sure that it will prove very beneficial to the fertilizer consumers of the State. The demand for farmers' institutes has been greater than for many previous years. I have visited many counties of the State, and everywhere the farmers have attended in large numbers, evincing a strong desire to become more familiar with the needs of their soils and the proper methods of fertilization and cultivation."

The eleventh annual convention of the National Paint, Oil and Varnish Association was held on the 11th inst. at the Hotel Waldorf-Astoria, in New York city. There was a good attendance, it being estimated that over two hundred and fifty were present at the convention, including local members of the association. The morning session was purely a business one, at which the reports of the president and other officers and various committees were presented. President A. B. Garner, in his annual address, reviewed briefly the work of the association for the year. Referring to the report of the committee upon the establishment of a Department of Commerce, he said: "The necessity for a department of the government, with a Cabinet officer at its head, for the care and development of the business interests of this great community, has grown immeasurably greater since the successful issue of the Spanish conflict has opened up new and unlooked-for countries to the civilizing influence of American capital and industries, and this association should not relax its efforts to secure the establishment of such a department." The following members were elected officers for the ensuing year: President, F. H. Glidden, Cleveland; first vice-president, W. A. Ramsay, Twin Cities; second vice-president, George L. Gould, Boston; secretary, D. Van Ness Person, Chicago; treasurer, A. Sherwood, Cleveland.

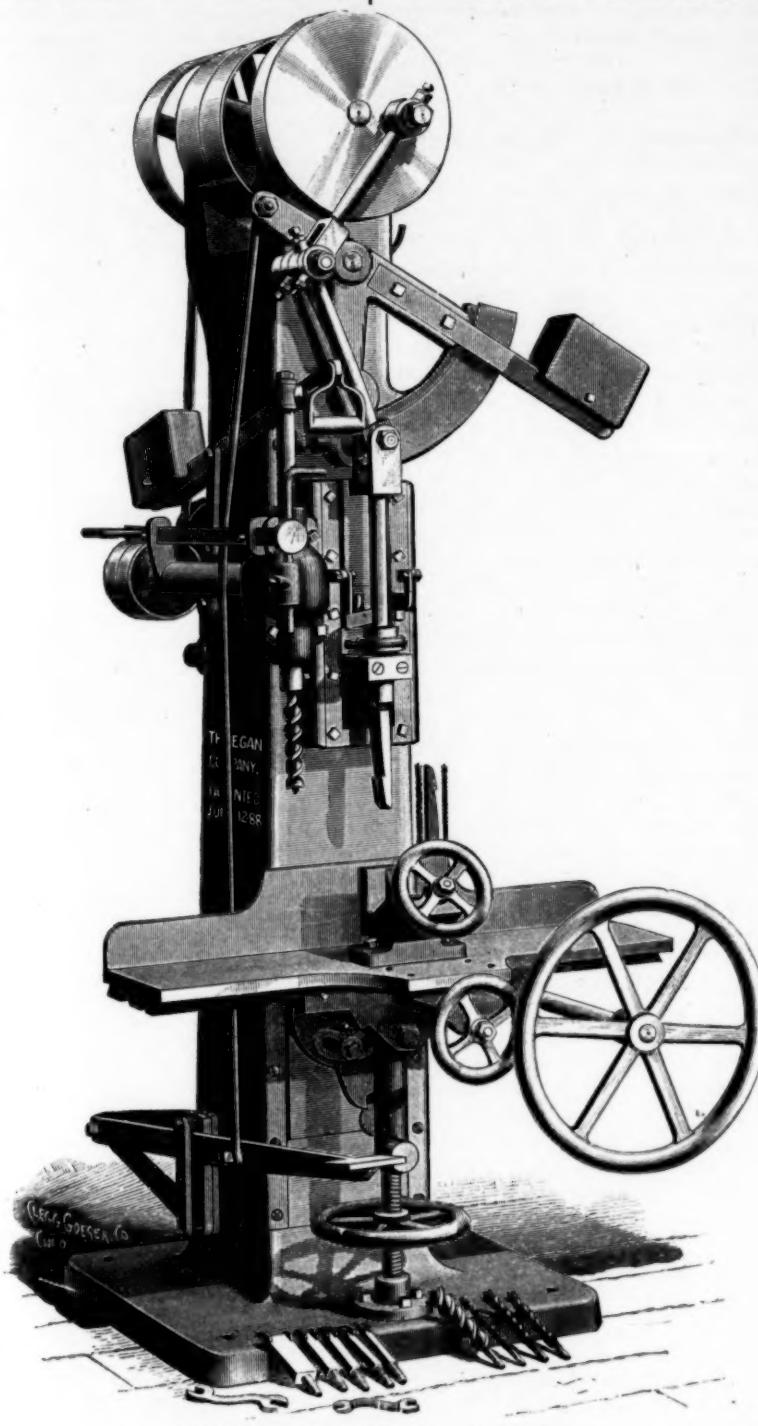
WANTED—Agents to solicit subscriptions for the SOUTHERN FARM MAGAZINE. Liberal commission allowed. Address

SOUTHERN FARM MAGAZINE,
Baltimore, Md.

MECHANICAL.

Agricultural and Car Mortiser.

This new No. 5 mortiser and borer is especially adapted and designed for



AGRICULTURAL AND CAR MORTISER.

wagon and agricultural work and light car work. The machine is capable of carrying from one-quarter up to two-and-one-half-inch chisel and mortising as deep as six inches, and almost any length in hard or soft wood, without any jar to the operator's foot. It has the graduating stroke, and when the bed is placed in position to suit the work the chisel is brought down from a still point to the full stroke.

The column is one casting, made hollow, and capable of standing the heaviest strain which a machine of this kind may be put to. The tight and loose pulleys are placed and run between bearings, causing the strain of the belt to be equal on both boxes and keeping the shaft and fly wheel in line with the connections, and true with the chisel slide.

The chisel mandrel is made of the best cast steel connected to one solid ram, working in planed ways, making it impossible for the mandrel to spring, when mortising the hardest kind of wood at the full stroke.

The patent chisel reverse is entirely new and perfectly automatic. It is controlled by the treadle movement operating on the chisel mandrel and reversing the chisel every time the treadle is brought

to the upstroke, making the most perfect chisel reverse ever put on a mortiser of this size or kind, and making a very reliable and desirable machine for general work.

The patent radial slide is entirely new,

chisel, which has never been accomplished heretofore on a machine of this class.

The bed is of large surface, made to cut a straight or angle mortise, and provided with a new adjustable clamping device for holding the work to the bed. Suitable provision is made to angle the table without interfering with the raising screws.

The boring mandrel is connected with the column and driven by a pulley at the top of same, making the machine self-contained in every respect. The boring bit is placed in line with the chisel and suitable stop is provided for gauging the depth in boring. A counterweight is furnished for lifting the boring mandrel up out of the way when not in use.

This is only one of the many new and improved woodworking machines that are built by the Egan Co., 270 to 290 West Front street, Cincinnati, Ohio. Full information and special prices on this or other woodworking machines furnished on application.

Self-Coring Mortise Chisel.

The accompanying engraving illustrates a self-coring mortise chisel, patented January 11 and August 16, 1898, and made by the American Woodworking Machine Co.

This chisel requires no hole bored pre-

ordering to give the maker's name of the machine, so that chisels of the right taper can be supplied.

For further information address the American Woodworking Machine Co., of 109 Liberty street, New York; 94 Pearl street, Boston; 45 South Canal street, Chicago, and Church and Basin streets, Williamsport, Pa.

Electric Locomotive.

A recent application of electricity to the steam railroad, superseding with faster schedule the steam locomotive and schedule, was that recently made on the Erie Railroad branch from Tonawanda to Lockport, N. Y. The service is of a mixed type, the passenger traffic being carried on by trolley cars and the freight service by electric locomotives. Our illustration represents one of the new locomotives used on this system supplied by the General Electric Co., of Schenectady, N. Y. The locomotives used are of thirty-six tons, built expressly for the purpose of handling the freight business of this line.

Safety in Navigation.

One of the problems of safe navigation is that of obtaining a reliable light for buoys and other guides at the entrances to harbors. It has required many years to bring to perfection a method whereby a

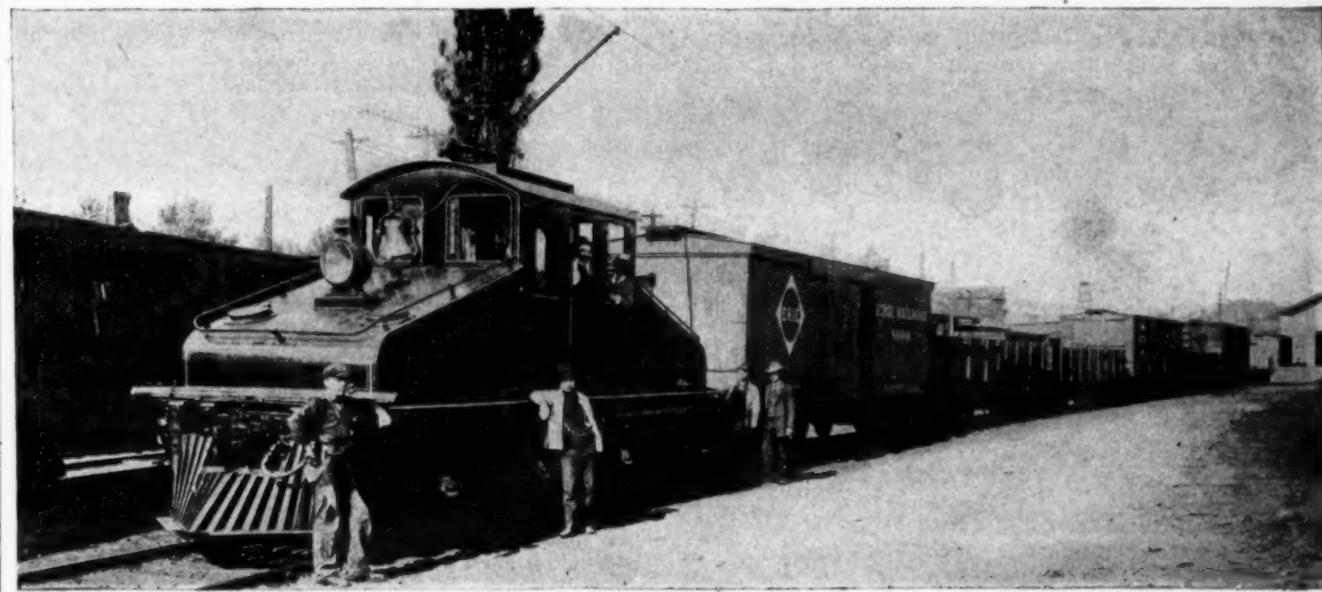


SELF-CORING MORTISE CHISEL.

vious to mortising in hardwoods, is easily kept in order, and it is claimed to accomplish its work equally as well as a chain mortise machine. The manufacturer guarantees these chisels to work as represented. As will be seen by referring to the engraving, the grooves in the side walls near the cutting edges guide the chips into the chip-receiving channel, and the side walls are curved inward, retaining the chips in the chip-receiving channel until the next stroke, when they are forced up and out. These chisels are a great success on foot mortisers as well as power machines, and all operators who have used them pronounce them a great improvement, and while on the market but a short time, the manufacturers state the demand is very great indeed and is rapidly increasing.

These chisels are sold at the following

constant and unvarying light may be had among the changing conditions of a buoy. Various means have been tried—tallow candles, oil, rosin, gas and others. Experience has brought out the imperfections of all of these. In recent years, however, what is known as the Pietsch gas-lighted buoy has come into use in all civilized countries, and is now regarded as a standard. It has been found that this buoy has ample buoyancy; that it will burn continuously and reliably for a number of days, which can be predetermined; that its flame is not extinguished by the wind or by the action of the waves breaking over it in a gale; that the quality of the gas employed is excellent, and that the apparatus for regulating the pressure of the burners is perfect. The Lake Carriers' Association, the pilots of Pennsylvania and Delaware, the Shipmasters' As-



ELECTRIC LOCOMOTIVE.

and covered by letters patent. It is attached to the connections and operated by the treadle and prevents the slightest jar on the foot, even when mortising without first boring a hole to admit the

prices: Five-sixteenths inch \$1.50, increasing at the rate of five cents per one-sixteenth inch to \$2 for one-inch chisel. They will be sent postpaid on receipt of price. Correspondents are requested in

sociation of the Great Lakes, special journals devoted to marine interests and the local papers of Southern and other ports have endorsed the light and have devoted themselves to the exploitation of its ad-

vantages, which have also been called to the attention of those who are responsible for the expenditure of federal appropriations for river and harbor improvements. The unanimity of opinion in favor of the light as the best method of coast and channel lighting is shown in an attractive pamphlet published by the Safety Car Heating & Lighting Co., of New York city.

Tubular Street Lamp.

The problem of outdoor lighting where gas or electricity is not available has been very satisfactorily solved by the Rochester Lamp Co., of 38 Park Place, New York.

The Rochester tubular street lamp possesses all the good features of the ordinary flat-wick tubular street lamp, combined with those that have made the Rochester lamp so famous.

This tubular street lamp has a center-draught burner, which marks as great an advance in street lighting as did the introduction of the first kerosene lamp.

In operation the air needed for the interior of the flame is drawn in at the top



TUBULAR STREET LAMP.

of the hood through the tubes and fed to the flame from the bottom through the center tube of the lamp. The air for the exterior of the flame is drawn through the perforated band below the globe, then through the outer perforations of the burner, and thence to the flame. This insures a steady flame and even combustion in any weather. The lamp will burn as well on the hurricane deck of a steamboat in a gale as well as under cover, and gives a light equal to three ordinary tubular street lamps. This lamp is made either with bail or post socket.

The Rochester Lamp Co. also makes other styles of outdoor lamps and lanterns; in fact, can supply any want in the lamp line.

"Bliss" Standard Roll Feeds.

The two half-tones shown represent the standard type of roll feed adopted by the E. W. Bliss Co., 137 Plymouth street, Brooklyn, N. Y. Fig. 1 shows the feed arranged for feeding the stock from front to back, and Fig. 2 shows it as used for feeding from right to left. Similar feeds are also built with two sets of rolls, the second set being used to carry away the scrap. These roll feeds are made in six sizes of from one and one-half inches in

diameter by three inches wide up to five inches in diameter by nine inches wide.

An interesting feature in this "Bliss" feed is an automatic roll release, which works as follows:

After each stroke of the press, at the

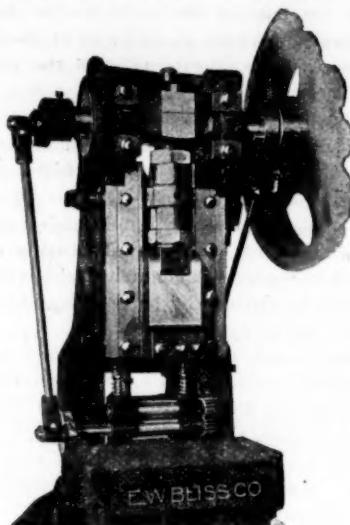


FIG. 1.

moment the pilot pins attached to the blanking punch are about to enter the holes previously pierced, the upper rolls are automatically raised so as to release the strip and permit the pilot pins to shift it into the proper position, correcting any "slip" which may have occurred in feeding. As some manufacturers dispense with this automatic release, the feed is made with or without it, at the option of the purchaser.

The Bliss Company builds other types of roll feeds, but, unless otherwise stated, will supply the standard type on all orders received for roll feeds. This company also

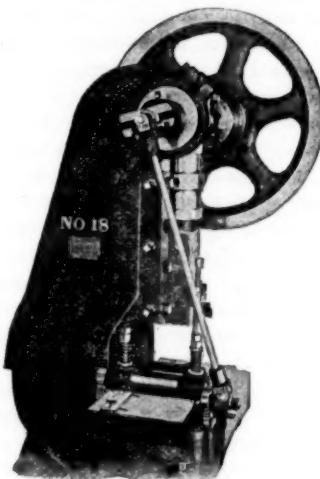


FIG. 2.

builds dials, gravity, reciprocating, push, carry and many other styles of feeds, which may be attached to any of its presses, and concerning which particulars will be given to anyone interested.

Developing an Important Baltimore Industry.

Mr. Angus Cameron, who, in connection with some associates, recently organized the Thomsen Chemical Co. and purchased the long-established business and plant of Alonzo L. Thomsen, has shown his faith in the advantages of Baltimore as a manufacturing and distributing point in a way which other leading Baltimore business men and financiers should imitate. This company has a very extensive plant, and is turning out commercial chemicals of every grade. Its business, already very large, and extending to the North as well as throughout the South, will be pushed with the energy and vigor for which Mr. Cameron is noted. Mr. Cameron's wide financial and business connections in this country and in Great Britain, and his long business experience, may be counted upon as important fac-

tors in making this one of the foremost chemical-manufacturing companies in America. If Baltimore people generally would take hold of local manufacturing enterprises as he has done, the advantages of this city for industrial development would soon be quickly appreciated by the business world.

On Mixing Cotton.

At the last meeting of the New England Cotton Manufacturers' Association Mr. Arthur Whittam, of Orangeburg, S. C., read an exceptionally practical paper upon the grading and mixing of cotton. He called attention to the importance of the subject, inasmuch as the quality of the yarn produced depends to a large extent upon the amount of systematic care and attention given to this most important branch of industry. He said that in buying cotton it was necessary to keep always prominently in view the quality of goods to be produced and the necessary grade or grades required to produce the same; that one of the reasons why some of the Northern mills command prices somewhat better than those obtained for Southern goods was the large amount of attention paid to such matters when purchasing cotton. He called attention to the fact that many mills in the South are today paying not less than one-half cent per pound more than is absolute necessary for the class of goods they turn out, and that cotton is stored indiscriminately, without regard to grade. He suggested as the best system for mixing the following:

First, decide on the number of bales of each grade you intend to put down, assort them proportionately and take, say, a third of a bale from one grade, shake loosely, or if a bale breaker is used, place it on the lattice, a small layer at a time, and after passing through the breaker rolls spread over the allotted space for mixing; then take a like amount from another grade and spread on top of layer number one, and so on until a part has been taken from a bale of each grade intended to be mixed, after which begin again on the first bale opened, taking about one-half of what remains and repeat until the first lot of bales have been mixed. Then open up another lot and lay it down in the same way, always taking care to avoid if possible having two bales of like grade placed together. Whenever only one grade of cotton is used it is advisable to put down only a third of a bale at a time before changing to another bale, as in many cases there is quite a variation in the quality of cotton packed in a single bale, and the smaller the individual layers the more uniform is the quality of the yarns obtained therefrom. The mixing should then be allowed to stand as long as is practicable prior to being used; this enables the cotton to open and spread more uniformly, and at the same time to absorb moisture from the atmosphere, which is most essential to good spinning. This system of allowing a mixing to remain unused for some time necessitates, of course, two mixings of like grade to be kept, for as soon as one runs out it should be replaced immediately. This should also be allowed to stand until required for use.

The Philadelphia Commercial Museum has published a valuable report on the Republic of Costa Rica, prepared by Gustavo Niederlein, chief of the scientific department. The report is made up of observations and studies pursued in 1897 and 1898, and of facts gathered with great care from official manuscripts and documents. It is valuable to those persons contemplating an extension of their trade to the republic.

TRADE NOTES.

Yarn Mill for Sale.—Mr. R. A. Duckrow, Troy, N. Y., is offering for sale the complete equipment of a cotton-yarn mill, either in whole or in part. (See adv.)

Wants to Represent Machinery Houses.—A North Carolina party, who is desirous of representing miscellaneous machinery houses in the States of North and South Carolina, invites correspondence on the subject. Woodworking and ironworking machinery, machine tools, engines, boilers, dynamos, etc., are especially what is wanted. Address "G. W." care of Manufacturers' Record.

Snow-white Zinc.—Referring to their snow-white zinc, Messrs. D. F. Tiemann & Co., of New York (140 West Broadway), say that it "is largely used for outside painting and is superior to lead, as it does not powder nor peel, is whiter, and is not affected by the atmosphere, so it remains white, and is cheaper, as one pound snow-white zinc will cover surface requiring one and one-half pounds pure lead."

A Rice & Sargent Engine.—The Brown & Sharpe Manufacturing Co., of Providence, R. I., recently installed a Rice & Sargent cross-compound condensing engine of 350 indicated horse-power in the main machine shop. The new engine takes the place of a pair of non-condensing simple engines of the Corliss type. One of these engines was built in 1872. The change will effect a saving of ten tons of coal a week. The gain in economy illustrates the great advance made in steam engineering during the past twenty years. The Rice & Sargent Engine Co., of Providence, R. I. (40 Codding street), builds the engine mentioned.

Firm of Architects.—The firm of Hook & Sawyer, architects, has been formed at Charlotte, N. C., being composed of Mr. Charles C. Hook, for a long time architect at that city, and Mr. Frank M. Sawyer, of South Carolina, at one time in the office of Hardin & Gooch, of New York city. Hook & Sawyer start out with an office full of work and report a bright prospect for the coming year. Both are men of energy and are well known in the Carolinas. The firm has in preparation plans for a number of handsome buildings, previously reported in the Manufacturers' Record. They will make fine business blocks and public structures a specialty.

Spiral-riveted Pipe for Water-works Construction.—The strength and long life of Root's spiral-riveted water pipe, the ease with which it may be handled, and the fact that it is not liable to give trouble through leakages, make it especially desirable for water-works construction. The Abendroth & Root Manufacturing Co., of 28 Cliff street, New York city, sole manufacturers, reports a number of large orders recently received for the pipe for this particular service. The Sheely & O'Shee Co., contractors, of Lincoln, Neb., lately purchased 12,000 feet of spiral-riveted pipe, which will be used in extending the water works at Lanesboro, Minn.; about 10,000 feet have been sent to Milledgeville, Ill., and 15,000 feet to the city of Augusta, Wis. The United States Water & Steam Supply Co., contractors, Kansas City, has placed an order with the Abendroth & Root Manufacturing Co. for about 5000 feet of pipe, which will be used at Concordia, Mo., and 6500 feet for use at Wyoming, Ill.

Recent Sales of Cochrane Feed-water Heaters and Purifiers.—These recent sales were made as follows: To the Shoenerberger Steel Co., Pittsburg, two 2500 horse-power; Sheffield (Ill.) Electric Co., one 100 horse-power; Ayer (Mass.) Water Works, one 100 horse-power; G. G. Caldwell, Chicago, one 100 horse-power; Rosenbaum Bros., Chicago, one 300 horse-power; Lane & Bodley Co., Cincinnati, one 200 horse-power; Kroeschell Bros., Chicago, one 300 horse-power special; Clinton Cement Co., Pittsburg, one 300 horse-power; William Waterall & Co., Philadelphia, one 100 horse-power; Barrett Manufacturing Co., Philadelphia, one 150 horse-power; Pennsylvania Manufacturing, Light & Power Co., Philadelphia, one 2000 horse-power; Washington Coal & Coke Co., Star Junction, Pa., one 500 horse-power; Pennsylvania Railroad Co., Broad Street Station plant, Philadelphia, one 2000 horse-power special; Lebanon Furnaces, Lebanon, Pa., one 1750 horse-power; Superior Steel Co., Carnegie, Pa., one 500 horse-power; Hooven, Owens & Rentschler Co., Hamilton, O., one 150 horse-power; Charles Erith & Co., London, England, one 100 horse-power; Lane & Bodley Co., Cincinnati, O., one 200 horse-power and one 300 horse-power. The well-known Cochrane feed-water heaters and purifiers are manufactured by the Harrison Safety Boiler Works, of Philadelphia, Pa.

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CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD
seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will better enable us to guard against errors.

ALABAMA.

Elba—Flour Mill, etc.—It is reported that variety works, saw mill, guano factory, planing mill, etc., will be erected; names of interested parties to be announced later.

Fort Payne—Steel Mill.—E. N. Cullom, of Birmingham, has purchased the Alabama Steel Mills, at Fort Payne, for \$80,000; it is probable that the plant will be put in operation.

Stanton—Lumber Company.—Incorporated: The Gregory-Coe Lumber Co.

Woodlawn—Water Works.—The citizens have decided to petition the legislature for authority to issue bonds for the construction of water works; cost of system will probably be \$15,000 to \$20,000; engineers have been engaged to make estimates. Address J. T. Hood for information.

Woodlawn—Water Works.—The construction of a system of water works is talked of; names of interested parties will be given later.

ARKANSAS.

Imboden—Flour Mill.—T. J. Wilson, of Black Rock, has purchased an interest in the Imboden Roller Mill. The mill will be improved by addition of grinding and bolting machinery to double its capacity, by new engine, etc.

Mablevale—Aluminum Works.—The Arkansas Aluminum Works has been established.

Paragould—Flour Mill.—The Paragould Roller Mill Co. will rebuild its mill by next spring, increasing capacity to 250 barrels of flour per day.

FLORIDA.

Crystal River—Steamboat Company.—Incorporated: The Gulf Transportation Co., \$200 capital, to own boats and water craft for the transportation of persons and property upon the navigable waters of Florida and the Gulf of Mexico; R. J. Knight, J. B. Martin and W. C. Knight are the incorporators.

Gulf Hammock—Fiber Factory.—J. W. Chapman (late of Indiana) will establish a fiber factory in Gulf Hammock.

Jacksonville—Mercantile.—Incorporated: The Baker & Holmes Co., with a capital of \$50,000, by J. Dobbin Holmes, John D. Baker and Benjamin F. Bowden.

Key West—Electric Plant, etc.—J. L. Watrout has asked for franchise to construct and operate street-railway power plant, electric-lighting plant, telephone system, etc.

Miami—Electric-light Plant.—The establishment of an electric-light plant is talked of. Possibly J. A. McDonald can give information.

GEORGIA.

Americus—Foundry and Machine Works.—J. R. Cook & Son have incorporated for the purpose of conducting foundry and machine shop, etc., with capital stock of \$25,000.

Augusta—Ice Factory.—The Bon Air Hotel will install a five-ton ice machine.

Augusta—Flour and Grist Mill.—Perry Miller will erect a large flour and grist mill.

Cedartown—Knitting Mill.—G. W. Featherston contemplates the establishment of a knitting mill for producing underwear for both sexes.*

Columbus—Cotton Mill.—The Eagle & Phoenix Mills will purchase machinery to the extent of \$10,000.

Fairmount—Flour Mill.—Bradford & Talbot will build a flour mill of the roller process, forty to fifty barrels capacity daily.

Fitzgerald—Electric-light and Water Works.—Contract has been awarded to Moore & McRae, of Atlanta, for the construction of the proposed municipal water-works and electric-light plant.

Greensboro—Water Works.—Contract for the construction of the municipal water works has been awarded to Walton & Wagner, of Rome, Ga., at less than \$20,000.

Harmony Grove—Cotton Mill.—It is reported that G. W. D. Harber will build a large cotton mill.

Marietta—Knitting Mill.—The Marietta Knitting Co. has increased its capital stock from \$22,000 to \$25,000, and will expend the additional funds so acquired for the purchase of new machinery.

Menlo—Cotton Mill.—It is reported that a cotton mill is projected for erection at Menlo. Further particulars will be given later.

Rockmart—Cotton Mill.—It is reported that Col. J. O. Waddell has closed negotiations for the erection of a large cotton mill.

Sparta—Crate Factory.—M. W. Harris will establish a crate and basket factory.*

KENTUCKY.

Brandenburg—Stone Quarries.—The American Lithographic Stone Co. has commenced the development of quarries of lithographic stone.

Louisville—Publishing Company.—Incorporated: The Central Methodist Publishing Co., by M. B. Chapman and C. D. Warren, of Louisville, and Zephaniah Meek, of Lettsburg, with capital of \$15,000.

Louisville—Land Company.—The Pennsylvania Land Co. has been incorporated, with capital stock of \$300,000, by Charles Gibson, Walter Irwin and William T. Hale.

Louisville—Printing Plant.—The Courier-Journal Co. will expend \$45,000 in improving its building, and, besides, will add some new machinery, put in electrical power, etc.

Louisville—Publishing Company.—Incorporated: The Central Methodist Publishing Co., with \$15,000 capital, by M. B. Chapman, Zephaniah Meek, C. D. Warren, Geo. P. Kendrick and Charles R. Long.

Louisville—Garbage Crematory.—The city council has in contemplation the erection of a garbage crematory. Address "The Mayor."

Louisville—Distillery.—Hoffheimer Bros., of Cincinnati, O., will erect the Lyndale Distillery, with mashing capacity of 1000 bushels of grain daily. The machinery will cost \$42,600.

Louisville—Broom Factory.—Henry B. Lesterby, of Surrey, N. C., is reported as contemplating the establishment of a large broom factory in Louisville.

Middlesborough—Rolling Mill.—The Watts Steel & Iron Syndicate has the materials on hand now for its proposed rolling mill and the work of constructing the plant is being pushed as rapidly as possible. This plant will enable the company to furnish all sizes of merchantable steel.

Mt. Sterling—Mercantile.—The White Dry

Goods Co., with \$2500 capital stock, has been incorporated.

Paducah—Broom Factory.—J. K. Bondurant & Son will rebuild their burned broom factory at once.

LOUISIANA.

Monroe—WaterWorks, Electric-light Plant, Sewerage System, etc.—The city will vote November 9 on the proposition (noted last week) for issuing \$155,000 in bonds for miscellaneous municipal improvements. The improvements, as contemplated, are water-works and electric-light plant combined, to cost \$60,000; \$30,000 for sewerage system, \$40,000 for streets and sidewalks, \$20,000 for school or other building, \$5000 for hospital. The city may possibly buy the private electric-light plant and water works, but should it fail to do so, will require the services of an engineer preliminary to the construction of municipal water-works, electric-light plant and sewerage system. A. A. Forsythe, mayor.

New Orleans—Tubular-dispatch System.—The Tubular Dispatch Co. has been incorporated, with capital stock of \$500,000, for the purpose of manufacturing and introducing tubular-dispatch system, etc.; A. W. Crandall, president; John C. Calhoun, vice-president, and Lesseps Story, secretary-treasurer.

New Orleans—Manufacturing Company.—The Inventors' Manufacturing Co. has been incorporated, with capital stock of \$100,000 and purpose of manufacturing new inventions, etc.; incorporators are C. H. Prieur, Henry F. Vives, Leonard Roblin, Thomas W. Evans, Dr. J. P. Fauchoux, Emile T. Combe and others.

New Orleans—Garbage Crematory.—The city engineer has been ordered to prepare plans for two garbage crematories, also an estimate on cost of said furnaces. Address "The Mayor."

Plaquemine—Cooperage.—The Baist Cooperage Co. has been incorporated, with capital stock of \$20,000; Frederick Baist, president.

MARYLAND.

Baltimore—Steel Plant, Furnaces, etc.—The Maryland Steel Co. has resumed the operation of its blast furnaces (idle about six weeks).

Baltimore—Ice Factory.—Incorporated: The Independent Ice Co., by William H. Green, Samuel R. Seitz, James M. Seitz, Elmer M. Beard and Henry J. Gettemuller, to erect an ice factory. The capital stock is \$100,000. Address Wm. H. Green, Ensor street, near Blair Market.

Baltimore—Real Estate.—Incorporated: The Acme Realty Co., for dealing in real estate, by George Plack, John Hyde, B. Howard Gaither, Joseph H. Henck and Charles E. Hill; capital stock is \$1000.

Baltimore—Brewery.—The Monarch Brewing Co. has awarded contract to E. M. Noel for the erection of its proposed brewery, to be located in Highlandtown.

Cumberland—Broom Factory.—It is reported that James Lisle, of Washington, D. C., will establish in Cumberland a large broom factory.

Elkton—Acetylene-gas Machines, etc.—Incorporated: The Elkton Construction Co., to manufacture and sell machines for the manufacture of gas from carbide. The capital stock is \$25,000; incorporators, George B. Kerfoot, George R. Ash, George McQuillin, John S. Wirt, of Elkton, and George S. Wooley, of Chesapeake City. Address Geo. B. Kerfoot.

Frostburg—Coal Mines.—Howard and Arthur Hitchens will develop coal mines near Frostburg.

Mountain Lake Park—Electric-light Plant.—The Mountain Lake Park Association contemplates the construction of an electric-lighting plant.

MISSISSIPPI.

Chatawa—Spool Factory.—C. Julian Bartlett intends to establish a spool factory, using sassafras, iron, sour, beech, gum and poplar woods.*

Howison—Lumber Mills.—The J. F. Welch Lumber Co. has been incorporated, with capital stock of \$75,000, for the manufacture of lumber, etc.; J. F. Welch is president; Ernest Welch, vice-president, and Walter F. Welch, secretary, and Horace Welch, treasurer.

Yazoo City—Water Works, Electric-light Plant, etc.—The city contemplates the construction of a system of sewerage and of

water works; an electric-light plant is also in consideration (15,000 inhabitants); L. G. Montgomery can give information.

MISSOURI.

Brown Branch—Flour Mill.—James Allbright contemplates the erection of a flouring mill.

Cassville—Corn Mill.—D. F. Thomas will erect a corn-meal mill.

Galvesville—Flour Mill.—Wood & Reed contemplate the erection of a large flouring mill.

Joplin—Lead and Zinc Mines.—Pittsburg (Pa.) and Washington (Pa.) parties have purchased a 120-acre tract of land near Joplin and will develop for lead and zinc ores; George L. Walter is president; W. B. Neal, vice-president; H. M. Crurie, secretary-treasurer. Address H. M. Crurie, Joplin.

Kansas City—Mining Company.—Incorporated: The Walker Mining Co., capital stock \$5000, by J. N. Walker, Richard Robertson and James L. Norman.

Rich Hill—Flour Mill.—The Farmers' Mills is erecting an addition and installing new machinery.

Rich Hill—Vehicle Factory.—Herman Schwamb will erect a new factory building to replace one recently burned; new structure to be 34x44 feet, of brick, for use as wagon and carriage manufactory.

Roy—Flour Mill.—Stephen Jackson contemplates erecting a roller-process flour mill.

Shuler—Flour Mill.—S. H. Hanson contemplates remodeling his mill.

St. Louis—Electrical Plant.—Incorporated: The Northwestern Electric Heat & Power Co., capital stock \$30,000, by F. W. Blees, John F. Schafer and Charles E. Roehl.

St. Louis—Realty.—Incorporated: The Vindey Realty Co., with a capital stock of \$100,000, by August Gehner, Charles Clark, Breck Jones, D. R. Francis, Wm. F. Nolker, S. E. Hoffman and Julius S. Walsh.

St. Louis—Cold-storage House.—The St. Louis Dressed Beef & Provision Co. will construct a cold-storage house 268x122 feet, five stories in height, at a cost of \$25,000.

NORTH CAROLINA.

Asheboro—Electric-light Plant.—The establishment of an electric-lighting plant is talked of; John T. Moffitt can be addressed for information.*

Catawba—Flour Mill.—O. D. Murry & Co. contemplate changing their mill to the roller process.

Charlotte—Card-clothing Factory.—George S. Hall has purchased the Southern Card Clothing Co.'s factory at \$9100.

Charlotte—Mercantile.—The Moore-Zirkle Company has been incorporated to do general merchandise business. The capital stock is \$6000; incorporators, E. K. Zirkle, B. Moore and H. A. Moore.

Charlotte—Cotton Mill.—The Gold Crown Hosiery Mills will install 2000 spindles to do its own spinning.

Charlotte—Sizing Factory.—Mr. Stenhouse (late of Austria) has leased quarters and steam-power and is equipping a sizing factory; later on a plant will be erected.

Concord—Knitting Mill.—The Cannon Manufacturing Co. is putting knitting machinery in its cotton mill.

Gibson—Knitting Mill.—McIlwain & Deaton are rebuilding their mill building that was recently burned. The firm has not yet decided whether to put in knitting or other machinery.

Greensboro—Electric-light Plant.—It is reported that B. S. Johnson, J. H. Lee, H. P. Jones and others, of Baltimore, Md., contemplate installing an incandescent electric lighting plant in Greensboro; R. R. King, Greensboro, can be addressed.

Lexington—Telephone Lines.—The Lexington Telephone Co. has let contract for the extension of its line from Lexington to Salisbury.

Lexington—Furniture Factory.—The Lexington Furniture Factory has been purchased at \$3800 by W. H. Regan, W. P. Pickett and J. L. Lindsay, of High Point, N. C.; J. F. Hargrave and others, of Lexington.

Merry Hill—Knitting Mill.—J. H. White and associates contemplate the erection of a knitting mill of twenty to thirty machines for making hosiery.*

Raleigh—Gas-plant Improvements.—The

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Raleigh Gas Co. (recently purchased by Baltimore, Md., capitalists) contemplates making improvements.

Raleigh—Water-power Development.—Geo. Allen, secretary Chamber of Commerce, writes that efforts are being made for the organization of a \$250,000 stock company for the purpose of developing an extensive power, said power to be transmitted for use by industries.

Salisbury—Electric-light Plant.—The city has granted franchise for electric lighting to F. E. Boardman; plant will be constructed to be operated by water-power.

Salisbury—Water-power Development.—A report states that capitalists will undertake the development of the water-power of the Yadkin river, near Salisbury, for transmission to miscellaneous factories. It is stated that the Baltimore Loan & Trust Co. will furnish the capital for the project. A. E. Boardman, of Salisbury, N. C., is said to have been in communication lately with the representative of the company relative to securing the required land and water rights.

Sherrill's Ford—Flour Mill.—E. L. Sherrill will remodel his flour mill to the roller process.

Terrell—Flour Mill.—T. F. Connor & Co. will erect a roller-process flour mill.

Wadesboro—Underwear Mill.—F. Hargrave and J. A. Leak will establish an underwear mill and pants factory; will employ twenty operatives.

Winston—New Industries, Developments, etc.—The New York & New Jersey Investment Co. has purchased \$125,000 worth of property in Winston and expects to do considerable building; also will locate several industries. Address company, care of the sectional Chamber of Commerce, Winston.

Winston—Furniture Factory.—The Winston Furniture Co. has been organized, with G. L. Miller, president; C. W. Prentiss, vice-president, and Walter A. Shore, secretary-treasurer; company will operate the Miller Bros.' furniture factory.

SOUTH CAROLINA.

Aiken—Saw Mills, etc.—L. J. Parker and L. J. Parker, Jr., have purchased the Carpenter & Turner saw mill and will operate it, introducing the manufacture of barrel staves, etc.; 150 acres of timber land have also been purchased for development.

Charleston—Lead Works.—K. C. Stello, of Summerville, S. C., has purchased the Charleston (S. C.) Lead Works and will operate same.

Darlington—Cotton Mill.—The Darlington Manufacturing Co. has added several new machines to its cotton mill.

Edgefield—Cotton Mill.—The Edgefield Manufacturing Co. has placed order for 2500 additional spindles, which will give it an equipment of 5000 spindles.

Georgetown—Saw Mill.—The Tilghman Lumber Co., of Norfolk, Va. (noted during the week as to purchase saw-mill site near Georgetown), is reported as intending to erect a saw mill of 75,000 to 100,000 feet of lumber capacity per day, with extensive dry-kiln plant, etc.

Orangeburg—Cotton Mill.—The Enterprise Cotton Mills has disposed of \$75,000 worth of bonds and will invest the proceeds in the purchase of the necessary machinery to put its mill in operation; an equipment of 11,200 spindles and 350 looms is contemplated; Arthur Whittam, secretary.

Piedmont—Oil Mill.—Incorporated: The Saluda Oil Mill Co., capital stock \$10,000, by T. G. Crymes, W. N. Trowbridge, T. D. Sloan and R. D. Sloan.

TENNESSEE.

Keltonsburg—Flour Mill.—J. B. Parrish will build a flour mill of twenty to thirty barrels capacity per day.

Lewisburg—Dry-kiln.—Sanders Bros. & Co. are erecting a large dry-kiln.

Madge—Saw Mill, etc.—J. O. Thomas and D. A. Johnston, of Chattanooga, have purchased timber lands near Madge and have erected saw mill to cut lumber.

Memphis—Sewing-machine Factory.—The Merchants' Exchange is negotiating with St. Louis (Mo.) parties for the removal of a sewing-machine factory to Memphis. It is proposed to organize a \$500,000 stock company and erect new buildings, etc.

Mount Airy—Flour Mill.—Smith, Pope & Davis will erect a flour mill of thirty-five to forty barrels capacity daily.

Springfield—Flour Mill.—F. Ogburn is replacing old equipment with new machinery for flour milling and greatly enlarging capacity of his mill.

TEXAS.

Dallas—Cigar Company.—Incorporated: The Seymour Rouff Cigar Co., capital stock

\$20,000, by Seymour Rouff, George G. Edlof, Sam Freshman, of Dallas, and Julius Oppenheimer, of San Antonio.

Dallas—Jewelry Company.—Incorporated: The Kneiply Jewelry Co., capital stock \$50,000, by J. E. Mitchell, W. T. Simmons and W. T. Camp.

Fort Worth—Mercantile.—Incorporated: Menefee Bros., capital stock \$25,000, by L. B. Menefee, O. Menefee and E. T. Menefee.

Galveston—Cotton-oil Company.—Incorporated: The R. L. Heflin Co., capital stock \$100,000, for dealing in cottonseed and seed cotton and all the products thereof, including its oils, etc. The incorporators are R. L. Heflin, L. Lobit and William F. Flash.

Paris—Mercantile.—Incorporated: The Hicks-Floyd Grocer Co., capital stock \$100,000, by George F. Hicks, C. P. Floyd, E. C. Fort, Murray T. Easton and F. O. Hicks.

Rogers—Water Works.—The Rogers Water Co. has sunk an artesian well and will lay pipes for water works; entire system will cost about \$12,000.

Sherman—Sewerage System.—It is stated that the city has completed arrangements with Geo. W. Ruch and associates, of Philadelphia, for the construction of sewerage system in Sherman.

VIRGINIA.

Big Island—Paper Mill.—L. A. Saddler and Oscar Cranz, of Richmond, Va., have purchased the Big Island Paper Mills. The plant will be overhauled and improved and then put in operation.

Bridgewater—Acetylene-gas Machine Works.—The Bridgewater Acetylene Gas Co. is being organized for the purpose of engaging in the manufacture of an improved acetylene-gas generator.*

Danville—Water-power Development.—It is reported that parties have bought the John R. Cabell farm of 300 acres with the intention of developing the water-power of the river flowing through the property.

Leesburg—Flour Mill and Grain Elevator.—W. S. Jenkins & Co. will rebuild their burned flour mill and grain elevator; mill to have daily capacity of 100 barrels of flour.*

Norfolk—Steam Laundry.—The Troy Laundry Co. has added new machinery.

Norfolk—Mercantile.—Incorporated: The Reuben Grocery Co., with a capital of from \$10,000 to \$25,000; James Reuben, of Lawrenceville, Va., is president; Joseph Beskin, of Norfolk, vice-president; T. Greenberg, of Norfolk, secretary and treasurer.

Roanoke—Coal Mine.—It is reported that coal has been found on the farm of S. W. Ragland.

Roanoke—Furniture Company.—Incorporated: The Donaldson Furniture Co., capital stock \$2500, by Wm. D., W. M., Jane, John J. and Anthony Donaldson; W. M. Donaldson, secretary.

Slate River Mills—Flour Mill.—O. A. Dowdy will change his flour mill to the roller process.

Suffolk—Electrical Works.—David Reckard (of Ohio) has established works for the manufacture of dynamos and other electrical appliances; fifteen skilled mechanics employed at the start.

Winchester—Electric-light Plant.—The Winchester Gas & Electric Light Co. is considering the installation of an arc plant, as has been reported, but definite decision has not been reached yet.

WEST VIRGINIA.

Bergoo—Flour Mill.—S. B. Hamrick is erecting a corn, wheat and feed mill.

Charleston—Driving Company.—The Middle Fork Driving Co., authorized capital \$50,000, has been incorporated by G. W. McClinic, W. Gordon Mathews, Harrison B. Smith, George E. Price and S. L. Flournoy.

Davy—Lumber Mills.—The Brier Lumber Co. (reported during the week as incorporated) will cut 10,000,000 feet of lumber which it owns in Young county; tramroads will be constructed and saw mills erected to carry out the proposed developments. Address Walter L. Taylor, Welch, W. Va.

Grafton—Lumber Company.—The John Alexander Lumber Co. has been incorporated, with capital stock of \$6000, by S. A. Montreville, of Pittsburg, Pa.; Dr. J. R. Garman, of Cumberland, Md.; E. A. Sweeney, of Pittsburg, Pa.; John Alexander, of Pittsburgh, and John B. McCoy, of Grafton, W. Va. Address John Alexander.

Harper's Ferry—Electric-light Plant.—The Harper's Ferry Light & Power Co. has obtained franchise for establishment of an electric-lighting plant.

Martinsburg—Pants Factory.—The Shenandoah Pants Co. noted last week as in-

corporated, has established a pants factory to utilize part of the production of the Crawford Woolen Mills; Charles W. Bert is president, and William Dunn, secretary.

Montgomery—Electric Company.—The Kanawha Electric Co. has been incorporated, with capital stock of \$5000, by J. W. Straughan, of Dugo, W. Va.; W. S. Montgomery, Jacob Sigal, E. W. McCormick and M. S. McCormick, of Montgomery. Address E. W. McCormick.

New Cumberland—Coal Mines.—The Marquet Coal Co. has been incorporated, with capital stock of \$30,000, by John R. Donahue, William S. Marquet, O. L. Marquet, George Marquet and others. Address Wm. S. Marquet.

Simpson—Coal Mining, etc.—Incorporated: The Gates Creek Coal, Coke & Railroad Co., capital stock \$2800, by W. T. Gates, Simpson, W. Va.; F. C. Pearre, John W. Kolb, George C. Wedderburn, N. H. Hutton, C. J. Weiner and John W. Brown, all of Baltimore, Md. Address Wm. T. Gates, Baltimore.

Wheeling—Ice and Cold-storage Plant.—The People's Ice & Cold Storage Co. (recently incorporated) has elected a board of directors as follows: Charles B. Lemmons, E. B. Carney, Charles R. Goetze, W. W. Thurber, Jacob Korn, Jacob Debolt, William Carenbauer, Frank Healy and A. Hottman. The company will soon ask for bids on the construction of buildings and equipment of machinery for a 40-ton ice factory. Chas. B. Lemmon is president; E. B. Carney, vice-president, and Harry Thurber, secretary.*

Wheeling—Extract Factory.—Exley, Watkins & Co. are considering several offers for the removal of their extract factory to other cities. The proposition most favored now contemplates the erection of a five-story building, 120x60 feet.

Wheeling—Foundry, etc.—The Co-operative Stove & Foundry Co. (noted last week as incorporated) has purchased rights for the manufacture of stoves, and will also operate a general foundry for the production of castings; will employ twenty hands at the start. The capital stock is placed at \$50,000; Eugene H. Deters, secretary, 524 North End, Wheeling.

BURNED.

Birmingham, Ala.—Hood Machine Co.'s plant damaged to extent of \$2000.

Cottonport, La.—F. Regard's sugar refinery; loss \$80,000.

Dime Box, Texas.—Harmon Harness' cotton gin; loss \$3000.

Gainesville, Texas.—B. F. Rook & Son's grist mill.

Junction City, Ark.—Summit Lumber Co.'s plant; loss \$50,000.

McKinney, Texas.—W. C. Burrus' cotton gin.

Pilot Mountain, N. C.—Dodson Bros.' tobacco factory; loss \$20,000.

Sartaria, Texas.—L. A. Ellis' cotton gin.

Taylorsville, Texas.—R. W. Riddle's cotton gin.

BUILDING NOTES.

Atlanta, Ga.—Clubhouse.—Joel Hurt, president East End Land Co., will erect a clubhouse.

Baltimore, Md.—Club.—George Archer has prepared plans for addition to Johns Hopkins Nurses' Club building.

Baltimore, Md.—J. E. Lafferty has completed plans for twenty-four dwellings for John Yewell; each to be three stories, 17x73 feet, etc.

Baltimore, Md.—Dwellings.—Walter M. Hampson has permit to erect four two-story brick dwellings (brick); William M. Burgan, to erect sixteen two-story brick dwellings.

Baltimore, Md.—Telephone Building.—Contract has been let to John Hiltz for the erection of a building for the Chesapeake & Potomac Telephone Co.; structure to be four stories high, 25x100 feet, brownstone, etc.

Baltimore, Md.—Freight Depot.—The Baltimore & Ohio Railroad will erect a \$100,000 in-bound freight station, 600 feet long, 42 feet wide and six stories high; will install cold-storage plant; William M. Greene, general manager.

Baltimore, Md.—Dwellings.—Wm. McL. Goodrich has completed plans for eleven three-story dwellings.

Birmingham, Ala.—Dwellings.—The Alabama Steel & Shipbuilding Co. has advertised for bids on the erection of twenty-five tenement-houses.

Charlotte, N. C.—Residence.—Hook & Sawyer will prepare plans for a nine-room

colonial residence for Capt. George Shannonhouse.

Charlotte, N. C.—Hotel.—H. C. Eccles will add a story to the Belmont Hotel and install elevator, new baths, etc.

Chattanooga, Tenn.—Mercantile Building.—Trotter Bros. will erect a four-story mercantile building.

Clarksville, Tenn.—Warehouse.—Julian T. Grace will rebuild his burned tobacco warehouse; former structure was 400x300 feet, three stories high, of brick.

Concord, N. C.—Church.—Improvements are to be made on the Concord Lutheran Church from plans by Hook & Sawyer, of Charlotte.

Douglas, Ga.—Courthouse.—Coffee county will erect a new courthouse to replace building recently burned. Address D. W. Gasquin, county clerk.

Elba, Ala.—Hotel.—It is reported that a large hotel will be erected; names of interested parties to be announced later.

El Paso, Texas—Municipal Building.—Plans by Maydwell & McClintock have been accepted for the proposed new building for the city jail and fire departments. Address "The Mayor."

El Paso, Texas—Residence.—Wm. Graves will erect a \$3700 residence.

Galveston, Texas—Piers, etc.—The Galveston Wharf Co. is having plans prepared for a new wharf; said wharf to be covered with shed 1200x150 feet.

Gaston, N. C.—City Hall.—Plans by C. C. Hook, of Charlotte, have been accepted for the proposed city hall building; structure to be two stories high, 32x60 feet, built of brick, and to cost \$3000. Bids will be wanted soon. Address George A. Gray, building commissioner.

Gaston, N. C.—City Hall.—The aldermen have accepted the plans of C. C. Hook, of Charlotte, for the proposed city hall building; structure is to have offices for city clerk and mayor, aldermen's room, courtroom, fireproof vault and jail. Bids will be asked for as soon as specifications can be prepared.

High Point, N. C.—Residence.—Hook & Sawyer, of Charlotte, N. C., will prepare plans for a residence for W. H. Ragan, of High Point.

Jamestown, N. C.—Residence.—J. S. Ragsdale has ordered Hook & Sawyer, of Charlotte, N. C., to prepare plans for a colonial residence.

Louisville, Ky.—Residence.—J. B. Hutchings has prepared plans for a \$7500 residence for Theo. Ahrens, Sr.

Louisville, Ky.—Office-building Improvements.—The Courier-Journal Co. has permit for \$45,000 worth of improvements to its office and printing plant.

Louisville, Ky.—Warehouses.—Dodd & Cobb have prepared plans for a brick warehouse for W. B. Belknap & Co. and for warehouse for the Ahrens & Ott Manufacturing Co.

Maxton, N. C.—Dwelling.—J. F. L. Armfield will erect a residence after plans by Hook & Sawyer, of Charlotte, N. C.

Norfolk, Va.—Church.—The Cumberland Street M. E. Church congregation will probably erect a \$15,000 church building.

Owensboro, Ky.—Exchange Building.—The Cumberland Telephone & Telegraph Co. will erect a three-story office and exchange building.

Pineville, Mo.—Jail.—An election will be held to consider issuing \$4000 in bonds for the erection of a jail; Zach Baker, clerk of court.

Pratt City, Ala.—Dwelling.—Henry Donaldson will erect a dwelling.

Raleigh, N. C.—Auditorium.—W. E. Ashley, N. B. Broughton and J. A. Jones have been appointed committee to erect an auditorium to seat 5000 people.

San Antonio, Texas—Depot.—The Southern Pacific Railroad intends to build a two-story brick, stone and granite depot; W. G. Van Vleck, manager, Houston, Texas.

Sheffield, Ala.—Depot.—Contract has been awarded by M. H. Smith (president Louisville & Nashville Railroad) and others for the erection of a \$12,000 union depot.

Spartanburg, S. C.—Brick Block.—J. J. Gouldcock has commenced the erection of a three-story brick block 80x150 feet.

St. Louis, Mo.—Incorporated: The Dozer Building Co., capital stock \$2000, by Charles W. Dozer, Mary and Martin A. Dozer.

Tampa, Fla.—Office Building.—The Southern Express Co. will erect a new office building; E. A. Faulkner, local agent.

Washington, D. C.—Dwellings, etc.—N. T. Haller has prepared plans for a commercial

building for Henry Strong; contract has been awarded to Charles W. King for \$40,000; the building will be of steel construction, fireproof material throughout, plate-glass windows, two rows of iron columns on each floor, iron staircase surrounding hydraulic elevator, steam plant, etc. Architect Fowler has designed plans for three-story dwelling for Theo. F. Swayze.

Winchester, Ky.—Jail.—Contract has been let to the Pauley Jail Building Co., of St. Louis, Mo., for the construction of a jail to cost \$9700; will have electric lights, water works, etc.

Winchester, Ky.—Residence.—Prof. R. M. Shipp will build a residence.

Winston, N. C.—Office Building, Opera-house, etc.—A six-story office building and an opera-house will be erected by parties induced by the New York & New Jersey Investment Co. The latter company will also do considerable building. Address company, care of secretary Chamber of Commerce, Winston.

RAILROAD CONSTRUCTION.

Railways.

Arlington, Ga.—The Georgia Pine Railroad Co. has completed its line between Arlington and Bainbridge, a distance of forty miles. It is understood, as already stated in the Manufacturers' Record, that further extensions will be made to Tallahassee, Fla. J. P. Williams, of Savannah, is president of the company.

Beattyville, Ky.—It is reported that the present owners of the Richmond, Nicholasville, Irvine & Beattyville Railroad have decided to build an extension thirty-five miles in length. Bennett H. Young may be addressed at Louisville, Ky.

Chattanooga, Tenn.—It is reported that final surveys have been examined for the proposed branch of the Southern Railway between Chattanooga and Stevenson, Ala. By the last route the distance will be about thirty-five miles. Frank S. Gannon, at Washington, is general manager of the company.

Clarksburg, W. Va.—P. H. Bennett, contractor for the West Virginia Short Line Railroad, informs the Manufacturers' Record that surveys are being completed for this line, which will be sixty miles in length, extending between Clarksburg and New Martinsville. He states that the road will be built in the near future.

Decatur, Ala.—It is reported that the Nashville, Chattanooga & St. Louis Railroad Co. has let contracts for constructing six miles of extension to its Middle Tennessee & Alabama division. The road has been completed from Fayetteville, Tenn., into Alabama. J. W. Thomas is president of the company.

Denmark, S. C.—A correspondent of the Manufacturers' Record writes that surveys have been completed and that work is to be begun upon the proposed branch of the Atlantic Coast Line from Denmark to Robbins, S. C. John R. Kenly, at Wilmington, N. C., is general manager of the company.

Dublin, Ga.—It is reported that engineers are making surveys for a line between Dublin and a point on the Plant system, near Lyons, Ga.

Eastman, Ga.—The railroad agitation in Eastman has resulted in the Eastman & Ocmulgee River Co. being formed, with \$25,000 capital, to build from Eastman to a connection with the Georgia & Alabama Railroad. The road will be eighteen miles long. J. B. Caldwell may be addressed.

Fayetteville, N. C.—It is reported that the Cape Fear & Northern Railway Co. has decided to build its line to Durham to a connection on the Norfolk & Western system, as well as to Fayetteville. The total distance is eighty miles. B. N. Duke is president of the company at Durham.

Goldsboro, N. C.—The Great Eastern Railway Co. has been granted a charter to build a line through Beaufort, Hyde, Pitt, Greene, Wayne and Johnson counties, to form a junction with the Southern Railway at Goldsboro or Selma. The capital stock is \$25,000. J. D. McCormick and J. N. Allen, of New York, are stockholders, as is also J. H. McCleary, of Suffolk, Va.

Hawkinsville, Ga.—It is reported that a company, entitled the Hawkinsville, Fitzgerald & Gulf Railroad Co., is being formed to construct a line from Hawkinsville to a point on the Gulf of Mexico and through Fitzgerald. Among those interested are H. V. Bowen, of Lula, Ga., and P. H. Fitzgerald, of Fitzgerald.

Houston, Texas.—It is reported that L. J. Smith, of Kansas City, and others are interested in a new system being formed be-

tween Kansas City and Galveston, Texas, by the way of Houston. It is to be operated by the Galveston, Houston & Kansas City Railroad and will include the Galveston, La Porte & Houston and several other roads now in operation.

Houston, Texas.—It is reported that the new owners of the Texas Western have determined to rebuild the line between Houston and Sealy, a distance of fifty-three miles. John P. Smith, of Fort Worth, is taking an active interest in the matter and engineers are now making surveys.

Little Rock, Ark.—The work of grading the Choctaw & Memphis Railroad has begun at several points on the line. It is stated that of the \$100,000 promised by the city of Little Rock in aid of the system all but \$7000 has been subscribed. Henry Wood, at South McAlester, I. T., may be addressed.

San Antonio, Texas.—The Texas Transportation Co. has completed its railroad line in the city, which is two miles long and operated by the trolley system. Otto Koehler is president of the company.

Savannah, Ga.—It is reported that legislation will be enacted, if possible, in the interest of the Knoxville & Tidewater Railroad, which is being promoted by Albert E. Boone and others. The legislation will be for the purpose of enabling the company to build to Savannah if it desires.

Summerville, Ga.—It is reported that the Chattanooga, Rome & Southern Railroad Co. proposes to build a branch line in Chattooga county and to reach the orchards in this section. C. B. Wilburn, at Rome, Ga., is president of the company.

Sweetwater, Texas.—It is reported that arrangements are being made to complete the Colorado Valley Railroad as far as San Angelo and possibly Wichita Falls, Texas. George G. Moore is chief engineer and A. Sloan, of Sweetwater, Texas, receiver of the company.

Victoria, Texas.—The stockholders of the Guadalupe Valley Railway have decided to issue bonds for the purchase of rails and rolling stock. It is reported that track-laying is to begin on the line, which has been graded, within thirty days. Uriah Lott is one of the principal promoters of the enterprise.

Washington, D. C.—Wm. H. H. Allen, of Washington, has secured the contract for constructing the City & Suburban Railroad from the eastern suburbs to Berwyn.

Winston, N. C.—The Chamber of Commerce of Winston, which is promoting the proposed railroad between Kernersville and Reidsville, has appropriated \$250 for the survey of the route.

Winston, N. C.—W. A. Blair, secretary of the Chamber of Commerce, writes the Manufacturers' Record that a company is now being organized to construct a railroad from a connection with the Norfolk & Western system at Winston to the South Carolina line. It is stated that the State will furnish convict labor to grade the line, build the bridges, and will be paid in common stock of the road. The business men of Winston are to subscribe for \$15,000 worth of the stock. It is understood that arrangements will be made with some other company or syndicate to complete the line, which will place Winston on a system between the principal Northern and Southern cities.

Street Railways.

Atlanta, Ga.—It is reported that the improvements which the Atlanta Railway Co. contemplates making will cost about \$200,000, including the various extensions. M. F. Amorous is president of the company.

Baltimore, Md.—David E. Evans & Co., of Baltimore, have secured the contract for building a trolley line for the Consolidated Railway Co. to extend from Mount Royal Station to the western part of the city.

Chattanooga, Tenn.—It is reported that the Chattanooga Railway Co. has determined to extend its trolley system to Smartt's Springs, in the suburbs. J. H. Warner is president of the company.

Key West, Fla.—J. L. Waltrous and others are interested in a proposed electric railway and have asked for a franchise from the city authorities.

Industrial Railways.—With this title the C. W. Hunt Co., of 45 Broadway, New York city, issues a catalogue (No. 9805) of industrial railways for manufacturing establishments. In thousands of large manufactures in this country such railways are in use to facilitate operations, and the systems described and illustrated in the book are most complete in their details and mode of operation. The C. W. Hunt Co. contracts to furnish these railways complete with cars for all purposes of industrial plants. If interested, send for catalogue.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Acetylene.—Ira McDavid, Columbia, S. C., wants addresses of manufacturers of acetylene.

Acetylene-gas Machines.—Bridgewater Acetylene Gas Co., Bridgewater, Va., wants information regarding manufacture of acetylene gas, catalogues from makers of machines, etc.

Basket and Crate Machinery.—See "Woodworking Machinery."

Boller.—See "Marine Machinery."

Boiler and Engine.—Catawba Furniture Co., Marion, N. C., wants to buy an 80-horse-power engine and 100-horse-power boiler.

Boiler and Engine.—W. S. Jenkins & Co., Leesburg, Va., wants to buy a 70-horse-power boiler and 60-horse-power engine.

Boilers.—See "Heating Apparatus."

Boilers.—Capital City Ice Co., Macon, Ga., wants to buy three boilers 72x18.

Brick Paving.—Proposals will be opened October 25 for the furnishing of materials and laying of vitrified-brick paving as may be ordered from time to time by the city of Tampa, Fla. Approximate quantities to be called for—28,865 square yards of paving and 14,500 lineal feet of granite curbing. For further information address J. N. Hazlehurst, chief engineer.

Cotton-manufacturing Machinery.—American Fiber Co., Jacksonville, Fla., wants address of makers of machinery (hand or power) for making cotton bats and putting up same in one-pound packages.

Dredging.—Bids for dredging at United States naval station, Port Royal, S. C., will be opened November 12. Specifications and blank proposal forms on application; Mordecai T. Endicott, chief of bureau, Washington, D. C.

Dredging.—Proposals for dredging at entrance of Pensacola bay will be opened October 22. Information on application. Address F. A. Mahan, major engineer, Montgomery, Ala.

Electrical Machinery.—Central City Ice Co., Macon Ga., wants to buy a 200-light dynamo.

Electric-light Machinery.—Will M. Robertson, Jr., Hazlehurst, Miss., wants to correspond with makers of one-half-kilowatt dynamo and steam engine of one horsepower to run same.

Electric-light Plant.—John T. Moffitt, Asheboro, N. C., will receive quotations on plant for electric lighting; second-hand equipments will be considered.

Electric-light Plant.—L. G. Montgomery, Yazoo City, Miss., wants to correspond regarding the erection of an electric-light plant, the construction of water works and the construction of a sewerage system.

Elevating Apparatus.—Capital City Ice Co., Macon, Ga., wants to buy ice-handling elevator apparatus for storing ice.

Engine.—See "Hoisting Engine."

Engine.—See "Electric-light Machinery."

Engine.—Capital City Ice Co., Macon, Ga., wants to buy a 50-horse-power engine.

Engine.—Cleveland Woolen Mills, Cleveland, Tenn., will buy a 250-horse-power Corliss engine.

Fire-alarm System.—Bids will be opened October 22 for the construction and establishment of a fire-alarm system in the city of Mobile, Ala. Specifications: Fifty-two signal-boxes, two chief's tapper, bell-striker for 3000-pound bell, thirty-five miles of No. 12 hard-drawn copper wire, etc. Bids must be accompanied by certified check for 2½ per cent. of amount of bid. Endorse bids "Proposals for Fire-alarm System" and address Cary W. Butt, chairman.

Flooring.—C. L. Warren, Covington, Tenn., wants addresses of parquet-flooring manufacturers.

Furniture.—Pearson & Rippy, Enoree, S. C., want prices and discounts on furniture.

Heating Apparatus.—D. V. Stroop, Paris, Tenn., is in the market for steam boilers and heating apparatus for courthouse and for hotel.

Hoisting Engine.—John A. Richards, Pensacola, Fla., wants to buy a second-hand hoisting engine of twelve horse-power.

Hydraulic Machinery.—See "Mining Machinery."

Ice Factory.—The People's Ice & Cold Storage Co., Charles B. Lemmon, president, Wheeling, W. Va., will want bids on a 40-ton ice factory complete.

Knitting Machinery.—J. H. White, Merry Hill, N. C., wants estimates on 20 to 30-machine plant for hosiery.

Knitting Machinery.—G. W. Featherston, Cedarburg, Ga., wants to correspond with makers of knitting machinery for underwear.

Marine Machinery.—J. C. Basnight, New Bern, N. C., wants to buy a good second-hand Scotch marine boiler of about twenty-five horse-power.

Mining Machinery.—Lewis Garrison, P. O. Box 123, Skagway, Alaska, wants to correspond with hydraulic mining companies or with companies manufacturing hydraulic mining machinery.

Pile-driving Machinery.—McIver & MacKay, Ocala, Fla., want figures on pile-driving machinery capable of working an 1800-pound hammer; new or second-hand.

Piping.—Capital City Ice Co., Macon, Ga., wants to buy steam pipe from one inch to six inches.

Pump.—Capital City Ice Co., Macon, Ga., wants to buy a deep-well pump 12x12x24.

Pumps.—H. H. Harding, Carthage, Mo., and associates may possibly want some new pumps for water-works plant.

Roofing, etc.—J. E. Hellams, Gaffney, S. C., wants prices on iron siding, roofing, building paper, skylights, etc.

Sewerage System.—L. G. Montgomery, Yazoo City, Miss., wants to correspond regarding the construction of sewerage system, of water works and of electric-light plant.

Sewers.—Proposals will be opened October 25 for constructing such lateral sewers and house connections as may be required from time to time by the city of Tampa, Fla. Laterals to be called for approximate 40,000 lineal feet. For further information apply to J. N. Hazlehurst, chief engineer.

Shingle Mill.—See "Woodworking Machinery."

Steel Tanks.—See "Tanks."

Stoves.—Pearson & Rippy, Enoree, S. C., want prices and discounts on stoves.

Tank and Tub Machinery.—See "Woodworking Machinery."

Tanks.—W. S. Jenkins & Co., Leesburg, Va., want to buy steel tanks for grain bins.

Viaduct Approaches.—Bids for constructing viaduct approaches at Nashville, Tenn., will be opened October 25. Bids will be taken in three classes—masonry abutments and pedestals, steel and timber superstructure and vitrified-brick paving. Plans can be seen at office of city engineer, W. M. Leftwich, Jr.

Wainscoating.—H. T. Powell, Macon, Ga., wants addresses of makers of wainscoating made up ready to paste on plastered walls.

Water Works.—L. G. Montgomery, Yazoo City, Miss., wants to correspond regarding the construction of water works, of sewerage system and of electric-light plant.

Woodworking Machinery.—M. W. Harris, Sparta, Ga., wants to buy machinery for manufacturing baskets and crates.

Woodworking Machinery.—Pendley & Dailey, Plainview, Texas, want machinery for manufacturing tubs and tanks.

Woodworking Machinery.—Asheboro Wood and Iron Works, Asheboro, N. C., wants prices on shingle machine; second-hand one preferred.

Woodworking Machinery.—C. Julian Bartlett, Chatawa, Miss., wants to correspond with makers of machinery for manufacturing spools.

Woodworking Machinery.—Muncy & Napier, Benge, Ky., want to buy a shingle saw mill.

Woodworking Machinery.—Wilson Laundry Machinery Co., Columbia, Pa., wants a keyseating machine and a jig saw.

TRADE NOTES.

Complimentary of Baldwin-Westinghouse Locomotives.—In a recent letter to the Westinghouse Electric & Manufacturing Co., the Stevens Coal Co. makes the following state-

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ments regarding the Baldwin-Westinghouse electric mine locomotive: "It gives us pleasure to say that this motor is giving the very highest possible satisfaction and is attracting considerable attention in this valley. It has been running since May 1, and has not cost a dollar in the shape of repairs, excepting a new valve for sand-box and a headlight base, broken in a collision with a car. It is running on a road of 25-pound steel 4000 feet long over undulating grades varying from one to six feet per 100 feet. Its regular load now consists of twenty cars of one and one-half tons capacity, and the time required for each round trip is from seventeen to nineteen minutes. We have pulled as high as twenty-five of these cars at one trip, which it did with all ease. When necessity requires, we can pull thirty cars, giving 50 per cent. more capacity than you guaranteed." This is evidence of the superior qualities of this mining locomotive, which is characteristic of the work done by the Baldwin and Westinghouse companies.

The Steam Towing Machine.—The towing question is of very much interest now to the American Ship Windlass Co., of Providence, R. I., as it has improvements in that line which are years ahead, and on this account it is attracting the steam-vessel people's attention, particularly to towing-machine and to tugboat outfitts. No seagoing tug is now complete without one of these time, labor and money-saving towing machines, and the large tugs now building and to be built that will not be equipped with this machine will be as rare as the tugs built in the past seven years that were not fitted with steam-heating apparatus in their pilot-houses. The steel tug Mary E. Luckenbach, building by John H. Dialogue & Son, for Lewis Luckenbach, of New York, is equipped with the American Ship Windlass Co.'s patent automatic towing machine. When a careful tug and barge owner like Captain Luckenbach adopts a patented mechanical device, the rest of the tug and barge people can rest assured that it will be perfectly safe for them to equip their vessels in a like manner, as the Luckenbach concern does not adopt anything that has not been proven a success beyond all doubt. Steam vessel owners (particularly tugboat men) are becoming more and more interested in the towing-machine question, and the improved facilities for handling barges when towing, and our government has also found it to its advantage to use the towing machine. During the war they purchased the steam collier Saturn of the Boston Tow Boat Co., and the steam collier Lebanon of the Philadelphia & Reading Transportation Line, and also the tugs R. W. Wilmot, William H. Brown and Gypsum King, all of which have towing machines. Then, as soon as they found out from the use of these vessels the advantages of the towing machines, they ordered nine more, which have been put on different vessels for towing battleships, etc. They find that they answer every requirement.

Charleston Lead Works.—Mr. K. C. Stello, of Summerville, S. C., has purchased the Charleston Lead Works at Charleston, S. C., and will continue to operate same for supplying the users of lead, etc.

TRADE LITERATURE.

Crosscut Saw-fitting Tools.—Messrs. E. C. Atkins & Co., of Indianapolis, have issued circulars aenent their crosscut saw-fitting tools, comprising everything required for the adjustment of such saws. These tools are manufactured under numerous patents covering valuable features.

Carborundum.—The manufacture and development of carborundum at Niagara Falls was fully covered in a lecture which was delivered before the Franklin Institute two years ago by Francis A. Fitzgerald. This lecture is now presented in the pamphlet issued by the Carborundum Company, of Niagara Falls, N. Y., the sole manufacturer of the new substitute for emery, corundum and similar polishing and grinding materials. The processes of manufacture are of much interest and should not fail to attract the especial attention of users of grinding materials, to whom the claimed superiority of carborundum over other materials of a like use are well known. The product of the Carborundum Company comprises the materials for the requirements of the grinder and polisher of metal, granite, glass, pearl, wood, leather, carbon, rubber, ruby, sapphire, porcelain, etc. This product includes crude carborundum in crystals, grains and powders, wheels, sticks, knife sharpeners, hones and bricks, paper and cloth and dental goods. Send for book.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Kentucky Bankers.

At the annual meeting of the Kentucky Bankers' Association, representatives of the principal banks of the State were present. The law affecting bank taxes was discussed; also the question of having a State clearing-house. The following officers were elected for the ensuing year: President, E. D. Sayre, Lexington; vice-presidents, G. C. Thompson, Paducah; D. C. James, Morganfield; J. E. Patton, Bowling Green; R. T. Smith, Horse Cave; Logan C. Murray, Louisville; E. S. Lee, Covington; D. W. Lindsay, Frankfort; S. A. Parks, Richmond; J. F. Barbour, Maysville; J. E. Winn, Mt. Sterling; G. W. Waite, Somerset. E. W. Hays, of Louisville, was re-elected treasurer, and Isham Bridges was re-elected secretary.

Carolina Central Bond Issue.

It is announced that arrangements have been completed for refunding the bonded debt of the Carolina Central division of the Seaboard Air Line. The plan provides for a consolidation of the first, second and third preferred bonds into a general mortgage for \$3,000,000, at 4 per cent., the interest payments being guaranteed by the Seaboard Air Line. The holders of the old first mortgage bonds, amounting to \$2,000,000, will receive in exchange 4 per cent. bonds amounting to \$2,050,000, or a bonus of 25 per cent. The second preferred holders will receive in exchange \$150,000 in 4 per cent. bonds. The holders of the old third preferred bonds will receive in exchange \$75,000 in the new bonds.

It is understood that no difficulty was encountered in making the arrangements, owing to the strong financial position of the Seaboard Air Line.

New Corporations.

The Germania Homestead Association has been formed at New Orleans by Jos. Hecker and others.

Business men of Bishopville, S. C., are preparing to open a bank, and are forming a company for this purpose.

H. H. Eddy, William M. Perkins and others have organized the Calcasieu National Bank at Lake Charles, La., with \$100,000 capital.

Arrangements have been made to form a national bank at Hampton, Va., with \$50,000 capital. Among those interested are J. W. Rowe and John Robinson, of Hampton.

A charter has been issued to the Provident Building and Loan Association of Charleston, S. C. T. S. Wilbur is president; J. B. Reeves, vice-president, and B. J. McTureons, secretary and treasurer.

W. J. Cherry and others are interested in a new bank to be opened at Rock Hill, S. C., under the title of the Commercial and Farmers' Bank. It will have \$80,000 capital, and will do a general banking and trust business.

The Port Arthur Trust Co., of Port Arthur, Texas, has been formed, with a capital stock of \$50,000, to do a real-estate and money-lending business. Incorporators are W. M. Smith, C. E. Smith and J. L. Austin.

The Great Eastern Building and Loan Association of Baltimore City has been incorporated, with a proposed capital stock of \$100,000, by John G. Eiermann,

Jr., Henry Miller, John M. Weaver, John Amos Evans, Edward L. Ward, Charles B. Burdette, Wm. H. Foy, Matthias Palmer and John J. Hurst.

New Securities.

R. S. Jamison, mayor, will receive bids on October 25 for the issue of \$13,000 in 4 per cent. bonds of Oakland, Md.

The city of Orangeburg, S. C., is preparing to sell an issue of \$50,000 worth of 5 per cent. bonds. T. M. Rabor may be addressed.

W. M. Patterson, of Atlanta, has purchased the issue of bonds of Greensboro, Ga., at a premium of \$1261. The amount of the issue is \$22,000.

Walter L. Stanley may be addressed concerning the issue of \$82,000 worth of 4½ per cent. bonds to be sold by the town of Wytheville, Va., October 22.

Proposals will be received on October 26 for the issue of \$16,000 in 6 per cent. bonds to be issued by the town of Wynne, Ark. M. Jolly may be addressed.

A. A. Forsythe, mayor, may be addressed relative to the proposed issue of bonds which will be voted on by the town of Monroe, La., on November 9. The total amount of the issue is \$155,000.

The New Orleans Brewing Association is negotiating with the view of readjusting its bond issues, and a plan has been prepared for an issue of 4 per cent. bonds, which will be secured by a consolidated mortgage on the property of the association. It is also purposed to issue preferred stock. The present fixed charges amount to \$178,500, while by the plan purposed they will be reduced to about \$104,000. The association is a combination of the various breweries in New Orleans.

Dividends and Interest.

The Masonic Temple Co. of Galveston has declared a dividend of 3 per cent.

The Watt Plow Co., of Richmond, Va., has declared an annual dividend of 5 per cent.

The Heurich Brewing Co., of Alexandria, Va., has declared a dividend of 6 per cent.

The Rappahannock Fair Society, of Fredericksburg, Va., has declared a dividend of 5 per cent.

The board of directors of the New Orleans & Carrollton Railway Co. has declared a quarterly dividend of \$1.50 per share.

Financial Notes.

The National Building and Loan Association, of Montgomery, Ala., has elected Jacob Griel as president.

Timely Trap Talk.—The foregoing three words constitute the title of an article in the October number of "Supplies." The article refers to the "Sirius" steam trap, and is of interest to all steam users. Address for information the makers, Messrs. E. F. Houghton & Co., 240 West Somerset street, Philadelphia, Pa.

Reduced Rates to Philadelphia via Pennsylvania Railroad, Account Peace Jubilee.

For the grand Peace Jubilee at Philadelphia, October 26 and 27, the Pennsylvania Railroad Co. will sell excursion tickets from Baltimore to Philadelphia at rate of \$2.80 for the round trip. Tickets will be sold and good, going, October 24 to 27, and returning leaving Philadelphia to October 31, inclusive.

This jubilee will be one of the greatest events in the history of Philadelphia. The rededication of Independence Hall, recently restored; the unveiling of the Grant Equestrian Monument, Fairmount Park; a monster civic and industrial parade, and a grand military and naval pageant, led by General Miles and other distinguished heroes of the late war, will be prominent features. The President and his Cabinet are also expected to be present.

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Infringement of the Morrin Patents on the Climax Boiler.—Mr. Thomas F. Morrin, the Clonbrook Steam Boiler Co., Brooklyn, N. Y., announces in a circular letter now being issued that the suits which his company brought against Thomas J. Lawler and the Edision Electric Illuminating Co., of Brooklyn, have been closed. The allegation of the Clonbrook Company of infringement of the Morrin patents on the "Climax" boiler have, after long and exhaustive argument, been decided in its favor, and all the patents in suit have been fully sustained. A printed copy of the judge's opinion in these cases has been issued.

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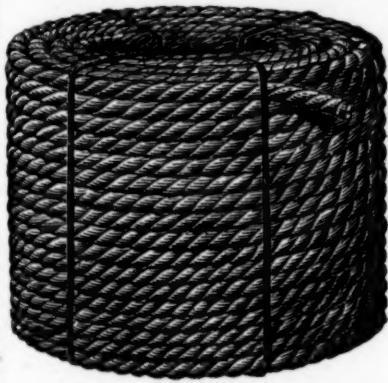
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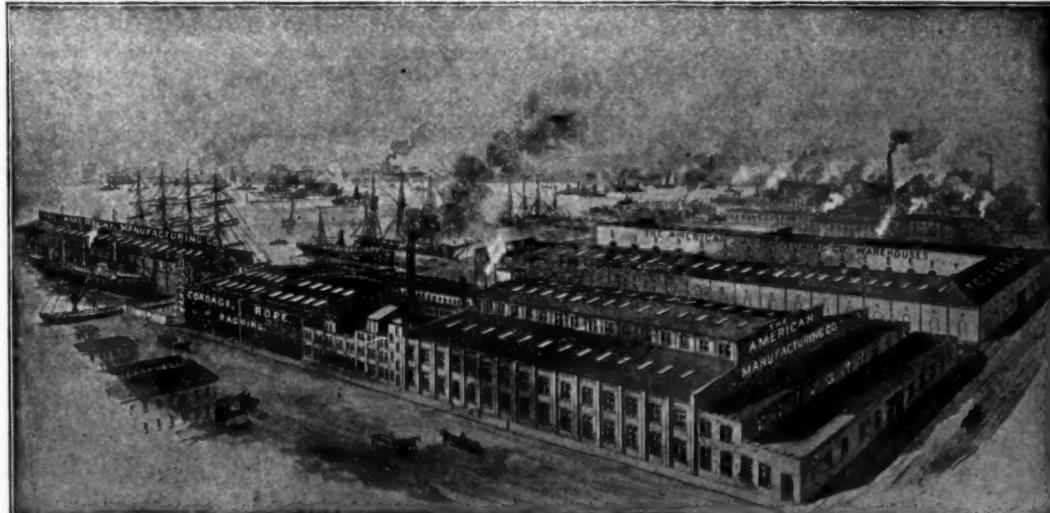
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[Oct. 21, 1898.]

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